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the American Perfumer and ESSENTIAL OIL REVIEW

COSMETICS · SOAPS · FLAVORS

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Technical Editor

CONTENTS · JUNE 1941

REGULAR FEATURES

NEW TAXES PLANNED

by ARNOLD KRUCKMAN, *Washington Correspondent*

If the Treasury has its way the manufacturers of perfumes, cosmetics, toilet preparations, flavoring extracts, and similar industries, will be obliged to pay an excise tax approximately double the present rate. On the other hand, if some members of the Joint Committee of Congress have their ways, the excise tax may be tripled, or even more, or the excise tax may be transformed into a straight sales tax.

Basis for Raising Taxes

In placing the schedule for increase of taxes before Congress, the Treasury put it this way: Assistant Secretary of Treasury John L. Sullivan, the spokesman, declared Congress must provide at least $3,600,000,000 in additional taxes. This would raise the present yield of $9,000,000,000 to something between $12,000,000,000 and $14,000,000,000. Whatever else is immediately needed for the U. S. and Britain is to be borrowed on the credit of the federal government. Meanwhile, roughly, one-third of the proposed $3,600,000,000 is to be raised by taking more out of each person's direct income, another third by taking more out of each corporation, and the last third by excising it out of the price of commodities and services.

Excise Increase $5,000,000

The industries making perfumes, cosmetics, toiletries, etc., are to contribute at least a minimum of $5,000,000 annually in the form of additional excises. It has been worked out thus: the 10 per cent alcohol products, roughly, shall contribute somewhere between $5,000,000 and $6,000,000 more per year; and the 5 per cent alcohol products shall pay a total of excises ranging somewhere between $700,000 and $1,000,000 additional. In 1933 the total for all cosmetic excises amounted to $678,000; in 1938 cosmetic firms paid into the Treasury roughly $8,000,000; in 1939, something over $10,000,000; and in 1940 there was a drop of almost $3,000,000 in the yield from the excise taxes paid by the cosmetic industry.

Other Increases

Of course, in addition, each firm will have to pay the proposed increase in corporation taxes. All corporate taxes would be raised an additional 5 per cent on incomes under $25,000, 6 per cent on incomes over $25,000, and the surtax would be imposed so rapidly that virtually all average businesses would be paying 11 per cent more than they are paying now. It is not yet clear whether or not the defense tax of 10 per cent will be increased.

It should be clearly understood that the whole system of increase is a proposal, and as a proposal is not yet set and crystallized in congressional minds. Much depends upon the temper and the reaction of the country. There is strong sentiment among some congressmen that in addition to the excise tax there should also be a manufacturers' tax, a tax assessed on the bulk volume of commodities manufactured, in addition to the tax on the price of each article, the latter being excise.

Tax on Wages

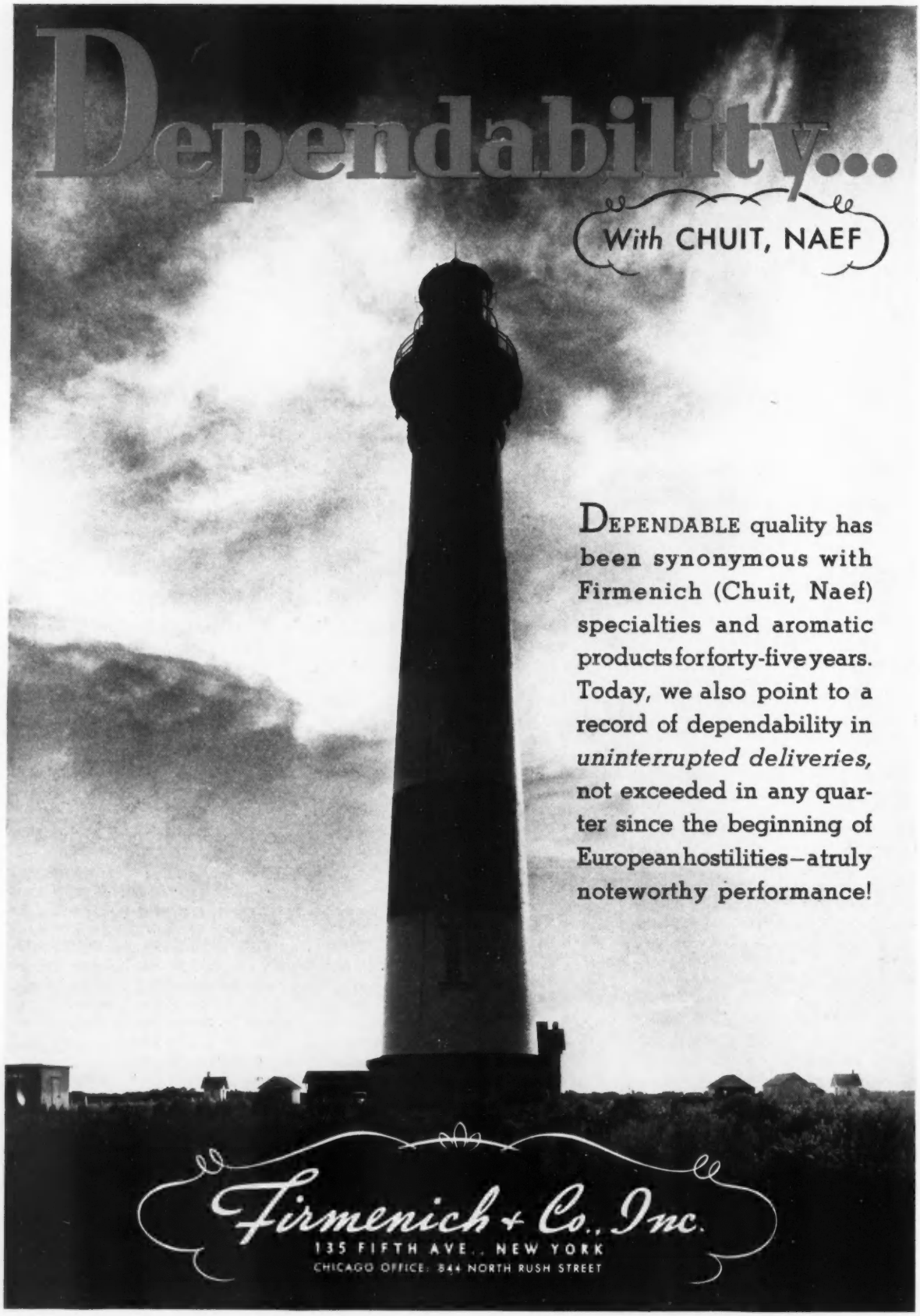
It is also practically certain that each manufacturer must arrange to deduct a certain amount of tax from the wages of each employe who earns $25 a week or over. This tax will be additional and separate from the social security taxes. The war tax on wages is an excise that is intended, if legalized, to be retained for the government by the employer who will be required to place in each pay envelope a receipt for the amount deducted from the weekly wages. In this proceeding, the government adopts the familiar system already practiced on behalf of some unions. It is also proposed that an effort shall be made to impose a sales tax, a direct excise to be collected where the ultimate sale is made. Some propose that this tax shall be in addition to all other taxes, while others propose it shall be used in place of the excise tax. The President is opposed to the sales tax, while the majority of Congress appear to be strongly in favor. The perfume, cosmetic, and allied industries also may possibly be obliged to pay some tax on advertising. This tax would in all likelihood be assessed upon every conceivable form of advertising.

Tax on Toilet Soap

The tax to be placed on toilet soaps is as yet undetermined and is debatable. The general idea prevalent in Congress is that importation of soaps has dwindled almost to the vanishing point, and that toilet soap has almost vanished as an imported article. The thought is therefore that domestic toilet soaps of a similar character should be taxed at least an equivalent of the usual import duty or custom tax total, which should be collected from the domestic product to make up the loss resulting from the elimination of the imported products. In fact, it is most likely that this type of soap, considered an extreme luxury in the bright lexicon of the tax-fixers, will be excise-taxed much more stiffly than the custom-duty tax assessed on imported articles.

More Taxes Coming

Bear in mind there are other taxes that inevitably will raise the prices of the ingredients and materials used in the manufacture of your products. There are stiff taxes all along the line that will raise the cost of the equipment you require—if you can get it. There will, for instance, be at least 5 per cent tax on all transportation rates in excess of a 35 cent ticket or charge. There undoubtedly will be taxes on telegrams, on telephones, on radios, on checks, on the various and many transactions and contracts and forms used in commerce. By and large in Washington, they are using some of the British tax-ways to raise funds to pay for this war. But, also bear in mind, that these tax methods have *not* yet been fixed, and that they will not be fixed without much debate, and that there is considerable difference of opinion about the methods; and that the opinion of the people in business, industry, and in all parts of the social economy or regions of the country, will really be welcomed by the men and women lawmakers in Washington.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EVALUATION OF FOAMING AGENTS IN BUBBLE BATHS

by F. W. MITTELSTADT

How to make bubble bath preparations . . . Use of wetting agents . . . Profitable addition to cosmetic line

BUBBLE bath preparations are now included in many cosmetic lines. They are easily prepared and impart several advantages to the ordinary bath, chief of which are the aesthetic touch to the usual ritual and the prevention of the telltale bathtub ring. They also possess water-softening properties, detergency and enhance the effectiveness of perfumes because of the large surface area exposed to the rich, billowy-lather.

The basic ingredient may be soap, saponin or any synthetic foaming agent. All such substances reduce the surface tension of water, thus aiding a rapid stream of hot water to beat up an abundance of "suds" or foam. Water under pressure is preferred, although normal city water pressure found in homes may be sufficient. To increase the water pressure, a small attachment may be fitted over the water nozzle in the bathtub, thus producing a rapid jet of water when it is turned on.

(Surface tension is a physical phenomena occurring with liquids. Molecules within a liquid are attracted equally in all directions by other surrounding molecules. Those at the surface, however, are attracted only from below, since there are no other molecules above them. Therefore, the surface layer as a whole is attracted by a force from within the liquid and tends to contract like a stretched membrane or, for the purpose of illustration, a balloon. Soap, gelatin, surface active agents, wetting agents, foaming agents, saponin and numerous other substances lower these forces of attraction and thereby lessen the tendency of the soap bubbles to contract. Foam or bubbles will form more easily and last longer when surface tension is lessened by some such active agent.)

Soap is mentioned as a possible ingredient of foam bath preparations. A soap composition similar to that of a good soap shampoo may be used. but the lather is not very lasting or profuse. In addition, soap produces bathtub ring which is un-

desirable. Soap causes perfume to deteriorate and in hard water districts, in particular, is quite ineffective. Therefore, soap must be ruled out as a possible ingredient.

Saponin might be used to advantage but because of the current belief that saponins are toxic, it may be wise to avoid this material.

FOAMING OR WETTING AGENTS

This leaves essentially that group of materials known as synthetic soap substitutes, sometimes called "wetting agents"* or "foaming agents." There is a big question in this case, namely, which is the best agent suited for the purpose? Not all the so-called wetting agents foam to the same degree, nor are all such foams produced equally stable under normal bathtub conditions. Therefore, the writer took a group of almost forty of the better known wetting agents and put them through a practical test to evaluate their efficiency in producing a stable foam under typical bathtub conditions.

PROCEDURE

To simulate such conditions as much as possible, large standard pails were used in place of a bathtub, into which water was run to a predetermined height, at 45° C, under normal city water pressure, utilizing a small nozzle attachment to produce a strong stream of water. One-half gram of dry wetting agent (or one-half cc. liquid) was placed directly in the pail.** Then a stream of water was turned on. (This amount is proportionate to that commonly used in an ordinary bathtub containing about twenty gallons of water. The temperature is comfortable and would be considered a warm to hot bath. The pail contents then were stirred once a minute by hand to duplicate such agitation as might occur while taking a bath. The amount of foam remaining at the end of fifteen minutes was carefully noted and appears in Table 1.

While the amount of foam produced in the bucket is not exactly the same as that which might be produced in a bathtub, the results obtained are an indication of the worth of the substance tested. Most wetting agents are sold by trade names, but in the following table, however, they are indicated by numbers instead of the names designated by the respective manufacturers. A list of the trade names of the various materials tested may be obtained by writing to THE AMERICAN PERFUMER on your letterhead.

TABLE 1. *Wetting Agents Only*

1 Foam remaining after 15 min.	2 Foam gone in 15 min.	3 Foam gone after 10 min.	4 Foam gone after 5 min.	5 No foam produced
22	35	26	4	1
17	7		15	16
12	2		27	29
23	5		30	31
18	8		32	28
24	36		13	10
19			3	14
33				
34				
21				
20				
11				
37				
9				
6				
25				

*The terms *foaming* agent and *wetting* agent are used interchangeably in this article. They refer to surface active materials made by synthesis.

**Qualitative test showed this to be the best technique, resulting in the most foam.

It has been known for some time that soap inhibits or even destroys the foam and that it should not be used with bubble baths if best results are desired. To test the effect of soap on the foam produced by foaming agents, a standard soap solution (made by dissolving a half-cake of toilet soap in a pint of warm water) was added to the pail of water containing foam, at the rate of one teaspoonful per pail, and hand-agitated. Table 2 shows the number of wetting agents that withstood the effect of soap.

TABLE 2*. *Wetting Agents Plus Soap*

1 Foam remaining after 15 min.	2 Foam gone after 15 min.	3 Foam gone after 10 min.	4 Foam gone after 5 min.	5 Foam gone at once
22	21	35	8	20
17	20	7	38	4
12	2	5	30	13
34		25	9	27
24		11	37	32
19		23	6	3
18				

* Group 5, Table 1, omitted from this test.

EFFECT OF BATH SALTS

Inasmuch as bath salts or other water softening agents are sometimes used in conjunction with the bath, the effect of such additions on the formation and the life of the foam was next determined. The wetting agents found in Group 1, Table 1, were the only ones tested, since a qualitative test disclosed that each of the other groups failed to respond satisfactorily to such treatment. A half-gram of sodium tetrapyrophosphate was added to the pail simultaneously with the addition of wetting agents. The rapid stream of water at 45° C was then directed upon this mixture. The foam was measured and the results are found in Table 3.

TABLE 3. *Wetting Agents Plus Sodium Tetrapyrophosphate*

1 Foam gone after 15 min.	2 Foam gone after 10 min.	3 Foam gone after 5 min.	4 Foam gone after 2 min.
12	18	24	20
23		21	33
22			19
17			
34			

The results shown in Table 3 indicate that sodium tetrapyrophosphate, like soap, tends to diminish the amount and longevity of the foam produced, even more than soap. Two of the wetting agents used did not seem to be affected at all and it will be noted that Group 1 in this table, as in other tables, contains the same effective agents.

The effect of bath salts (sodium sesquicarbonate crystals) was then determined with the wetting agents in Group 1. Approximately, one gram of bath salts was placed in the pails along with the

A movie star in a bubble bath consults with film director

wetting agents (one-half gram) to be tested. A stream of water at 45°C was then directed upon the mixture and the amount of foam noted as before. Soap was added then as described in Table 2 and the effect of this addition was observed. The results of this test are found in Table 4.

TABLE 4. *Effects of Bath Salts and Sodium Alginate*

Foaming Agent	Bath Salts *	Bath Salts and Soap **	Sodium Alginate *
12	0	–	0
23	0	0	0
22	†	†	†
17	†	††	0
18	†	0	†
24	††	0	††
19	†	†	0
33	0	0	0
21	†	†	†
20	0	0	0

* As compared with foaming agent alone.
** As compared with foaming agent plus soap.
† Somewhat more stable.
†† Considerably more stable.
0 No appreciable difference.
– Less stable.

Bath salts alone increase the stability of foam produced by most materials tested. The addition of soap to the bath salt-wetting agent foam tended to increase the foam only in some cases.

One of the major problems in the production of an effective bubble bath preparation is to preserve the foam *after* it is produced. The foam tends to dry by evaporation of water and then collapse. Sodium alginate has come into some prominence for this purpose. The effect of sodium alginate is shown in Table 4.

The test to determine the effect of sodium alginate was made by adding one cc. of a one per cent solution of sodium alginate to the wetting agent upon which a rapid stream of water at 45°C was directed. The foam produced was compared with that of foaming agent alone containing no other additions. It will be noted that in some cases sodium alginate did stabilize the foam.

OTHER STABILIZERS

Other stabilizers that might be tried are glycerine, the glycol ethers and commercial sorbitol syrup. It has been established that both commercial sorbitol syrup and glycerine in shaving cream, for example, increase the life of the lather and these findings may apply to bubble bath preparations.

CONCLUSION

A number of wetting agents have been found to produce a copious lasting foam, as a result of comparative tests. It has been found further that the addition of bath salts has no deteriorating effect on the foam produced and in some cases enhances it. Sodium alginate stabilizes the foam produced by some of the foaming agents tested. Other stabilizers might be used.

A satisfactory bubble bath preparation may be made by selecting the material from the group of most useful wetting agents as described in the various tables and mixing it with perfumes without further modification. Some of these materials are liquids and others are powders. Other compositions may be made by mixing bath salts in various proportions with the earlier mentioned wetting agents. Sodium alginate mucilage may be added to the liquid mixture for stabilization and the dry alginate may be mixed with powders. The percentage of commercial wetting agent required in such mixtures is approximately 33 per cent by weight in the case of solids, and by volume for liquids.

Cosmetic Corporations

A REPORT on "Perfume and Cosmetic Manufacturing Corporations," in the Federal Trade Commission's project for the collection of annual financial reports from a large number of industrial corporations operating in many of the principal industries of the United States, has been issued.

The nine perfume and cosmetic manufacturing corporations whose financial reports are combined represent nine of the more important concerns, both from the standpoint of investment and value of goods sold. The data are shown in combined form and in a manner that does not identify the results of any individual corporation. This report is, in general, confined to a presentation of the basic financial data reported by the selected corporations, in amount of money value, together with the mathematical ratios and percentages derived therefrom.

The classification of "perfume and cosmetic manufacturing corporations," as used, refers to corporations that are primarily engaged in manufacturing perfumes, cosmetics, and other toilet preparations such as toilet water, face powder, washes and lotions, hair tonics, etc. The preliminary report of the Bureau of the Census shows that the total combined value of products for perfumes, cosmetics, and other toilet preparations, on an establishment basis, amounted to $147,465,585 for the year 1939. The nine corporations included in this survey reported combined consolidated sales aggregating $29,679,607 for the year 1939, or 20.1 per cent of the total reported by the Bureau of the Census. The total sales represented both foreign and domestic sales.

The combined net income (before deduction of interest on long-term borrowings and income taxes)

on the average total capital of $24,521,639 employed by the nine corporations in 1939 was $3,837,059, and this represented a rate of return of 15.7 per cent. The rates for the individual corporations ranged from a profit of 0.6 per cent to 40.8 per cent. Five of the nine corporations had rates of return higher than the average, and their rates ranged from 20.3 per cent to 40.8 per cent. The remaining four corporations had rates lower than the average, and the range was from a profit of 0.6 per cent to 2.9 per cent.

The net income on the average corporate net worth investment, or stockholders' equity, after provision for income taxes amounted to $3,162,508, and this was a rate of return of 13.0 per cent on the stockholders' investment. The range in rates for individual corporations on this base was from a profit of 0.4 per cent to 33.6 per cent.

During the year 1939 the nine corporations realized a net income, after provisions for the payment of income taxes, of $3,162,508. The combined cash dividends paid, on accrued, amounted to $160,376 on preferred shares and $2,550,531 on common shares, for 1939. The cash dividends paid, or accrued during the year 1939 represented a return of 11.2 per cent to the stockholders on the average ledger value (not market value) of their equity of $24,296,639.

All the manufacturers whose reports are combined were called upon to submit income and expense statements showing the principal elements of the cost of goods sold and expenses, such as direct materials, production wages and salaries, etc. One corporation failed to submit the complete material. For the purpose of giving complete data, in so far as available, with regard to the principal elements of operating costs, and especially operating ratios, a supplemental statement showing the principal elements of the costs and expenses for eight corporations is submitted in the report.

The 1939 operating ratios for the eight perfume and cosmetic manufacturing corporations show that the cost of goods sold (exclusive of taxes, social security and pension fund payments, selling expenses, administrative and general office expenses, research and development expense, etc.) represented 42.5 cents of every dollar of sales. Of the total cost of goods sold, raw materials represnted 27.9 per cent; production wages and salaries, 5.2 per cent; other costs and expenses (not listed under "Expenses"), 5.6 per cent; depreciation and obsolescence applying to production facilities, 0.9 per cent; and finished goods purchased for resale, 2.9 per cent. The gross margin on sales was 57.5 cents on each dollar of sales.

The total of items listed as expenses represented 45.8 per cent of the total sales. Of the total expenses, selling expenses represented 10.0 per cent of total sales; advertising, 20.7 per cent; administrative and general office expenses, 7.7 per cent; all taxes (except income taxes and social security payments), 6.4 per cent; and all social security and pension fund payments, 1.0 per cent (ratio here is to sales dollar and not payrolls). After deduction of the items listed as expenses, together with the provision for uncollectible accounts of 0.1 per cent, from the gross margin on sales less other operating loss of 0.1 per cent, there remained a net profit from manufacturing and trading of 11.5 cents from every dollar of sales.

The combined total inventories of the nine corporations included in this survey amounted to $4,232,709 at the beginning of 1939 and to $4,300,632 at the end of 1939, or an increase of 1.6 per cent.

A limited number of copies of the full report is available for distribution to those interested.

Foot Powders

IT is only natural that with the recently largely increased personnel of the country's armed forces, interest in foot preparations has been revived and greatly intensified.

Of all foot preparations, powders are the most extensively used, their principal ingredients being talc, borax, boric acid, starch, magnesium carbonate, zinc oxide, zinc stearate, zinc peroxide, zinc perborate, sodium perborate, tannic acid, salicylic acid, and alum. The principal prerequisite of such powders is the ability of the powder base to absorb humidity. A suitable base might, for instance, be made up of starch 80, kaolin 73, Fuller's Earth 70, precipitated calcium carbonate 53, talc 61, prepared chalk 65.

A simple yet quite efficient powder can be made of starch 50, sulphur 25, talc 25. A foot powder containing peroxide might contain zinc oxide 10, sodium perborate 15, talc 75. An astringent foot powder can be made by using alum 600, tannic acid 50, salicylic acid 20, talc 330. Preferable would, however, be a weak solution of aluminum chloride (maximum 10 per cent) which would also simplify application.

Naturally a suitable perfume compound has to be added in each case. The nature of the perfume used varies greatly but as a rule light refreshing fragrances are preferred.—*Schimmel Briefs.*

"And we guarantee every bubble in our bubble bath to be two inches in diameter and bearing our trade-mark register!"

WOMAN MAKING A FORTUNE IN COSMETICS

Why Vilma Schwarz founded and how she built up a thriving business in Mexico . . . Woman bull-fighter who receives gift sets and unique raffles are part of unusual merchandising plan

by DR. ALICE R. GERSTEL

Mrs. Schwarz and her daughter.

ONE day in 1932, Theo. Schwarz, technical manager of a large soap and oil plant in Gómez Palacio, Durango, and vice-consul for his native country, Czechoslovakia, received bad news: a friend to whom he had loaned money to build up a cosmetic business told him that he was insolvent and could never repay him. While he explained this to Mr. Schwarz in the soap plant office, Mrs. Schwarz at her house was surprised by the arrival of an untidy heap of bottles, powder, essential oils and other perfumery material which was supposed to compensate for the borrowed money. When the Schwarz' tried to dispose of that apparently useless stuff, they found that nobody wanted to buy it. So Mr. Schwarz discussed with his wife the idea of their going into the perfumery business.

Theo Schwarz

WHY THE BUSINESS WAS STARTED

It happened that Mr. Schwarz had read an offer of an American company to give away booklets with information on every possible branch of chemical manufacturing. Mrs. Schwarz never had dreamed of becoming a business woman but she and her husband are enterprising, "diámico," as the Mexicans say. So they asked for the offered booklets. Mr. Schwarz, a trained chemist specializing in the chemistry of explosives and fats, gathered elementary knowledge about how to make creams and lotions. A primitive laboratory was established in the garden. At first, the results were poor, as most of the raw materials proved worthless. New raw material was ordered from abroad and the first order for containers was given to the Vidriera Monterrey, the big glass plant in northern Mexico. Mrs. Schwarz' given name was chosen for a trademark and "Productos Vilma" were launched on the market. Customers first were sought among the friends who spent their weekends at the Schwarz' cottage. Sales of the first month amounted to the sum of 47 pesos! However, Mr. Schwarz continued experimenting in the garden laboratory in his spare time and Mrs. Schwarz began to develop her then unknown qualities as a business woman.

DRUMMERS STARTED MERCHANDISING

At the end of the first year, the products which had been the most successful were elaborated: liquid almond cream, cold cream, turtle oil cream, an organic soap and brilliantine. Merchandising was done by drummers of other firms, who took the new products along as a side line. After three years of hard work, sales in one month reached 3000 pesos. For a long time afterwards, however, sales averaged 1000 pesos.

In 1936 Mrs. Schwarz decided to move to Mexico City. She rented a two-story house in which the ground floor was utilized for manufacturing and the office, the first floor was reserved for the family and the second for storing material and merchandise.

Her basic idea was to offer first-class merchandise at reasonable prices so as to appeal to the broad middle classes. With this purpose, she went out to conquer the clerks' wives, the sales girls and the working women. In 1938, when the rate of exchange made expensive foreign products unavailable even for many society women, she had the satisfaction of capturing part of that market. By that time, Vilma had become a popular name all over the republic.

THREE TRAVELING SALESMEN COVER COUNTRY

Mrs. Schwarz endeavors to do as much as possible herself. In Gómez Palacio, she had no employes at all. When she went to Mexico City, she hired an intelligent young Mexican for personal contact with city customers and three traveling salesmen to cover the three big zones of Mexico: the North which had been the cradle of her business; the Pacific, which included the middlewest; and the

Vilma products originated in the Schwarz' garden laboratory.

Atlantic, from Tampico down to Chiapas. The salesmen worked with fixed daily expenses and on a commission basis. All the rest of the work is done by Mrs. Schwarz herself. She is the general manager and directs the manufacturing and the 23 working hands. She is also advertising manager, financial director, bookkeeper, buyer and correspondent. This concentration of the activities of half a dozen kinds of work in one person accounts to a great extent for her success.

In the beginning, every peso that was earned went back into the production and advertising. It was only in March, 1940, that Mrs. Schwarz started taking about 1000 pesos monthly for her own use.

HOW THE RADIO IS USED

After a few trials with newspaper ads, the concern turned principally to radio and ever since the air has been the chief means of advertising. The schedule began with one broadcasting station and in three months sales had doubled. The radio advertising was aimed at the simple people and was carried out in various ways. At one time, a clever woman and a good speaker who would speak to the public on a half-hour daily program, giving little lectures on physical culture, household, education, etc., were hired. While announcing Productos Vilma, the audience was invited to become members of the "Woman to Woman Club.." This was done when the women sent in their names and addresses and in return received tickets, each with a number. These authorized them to take part in a lottery where several gift boxes of Vilma products were raffled publicly. The response was enormous and this plan continued for more than two years.

Conchita Cintron in her bull-fight attire.

Then came the turn of the "Caballero Palido," the "pale gentleman," nickname of a popular Mexican composer who on Vilma's air time played and sang his new songs and asked the audience to find appropriate titles for them. Whoever sent the best name was rewarded with a prize. After this had gone on for a week, Vilma would rent a hall where the musician appeared in person before the public playing and singing his songs. Women came in droves to hear and see him and thus there was another opportunity for publicizing the firm.

FREE MAKE-UPS RAFFLED

In addition, the announcer told the audience each day to claim their tickets by phone or mail, and each day five bonuses for a free permanent wave or a free make-up in one of the fashionable beauty parlors were raffled. Vilma paid for the service of the beauty parlors with her products, thus obtaining another channel for distribution.

Counters in several large drug and department stores were rented and the products displayed. A girl, trained in the elements of cosmetic diagnosis and the art of selling, was put in charge of each counter. In addition to the retail products there were several big jars. Every woman customer who passed was asked to have her skin examined free of charge. Following the examination, two or three tiny containers were filled from the big jars and presented to the customer, with instructions for use of the products. Each customer's name was kept on file and most returned to buy a full bottle or jar. Then they received another free sample of an additional product as well as additional advice. In this way, a large group of permanent customers was developed. This education of customers was continued although the promotion staff moved on to another shop. The shopkeeper was satisfied as he obtained some new permanent customers and a percentage on the sales.

In many of the large movie houses, each patron was presented with a numbered ticket. During the

Miss Cintron, only woman bull-fighter, received a gift of Vilma products when she performed in the Mexico City arena.

Photo—Mexican Govt. Railway System

A part of the throng which watched a bull-fight in the Mexico City arena, said to be the largest one in the world.

recess, a raffle of Vilma products was held on the stage and each patron had a chance to win a gift box. This and many other things were done in order to approach the public directly. Retailers and wholesalers also had their share. If one ordered a lot of 2000 pesos worth, one received free of charge a few lines of advertising on Vilma's air time. If the order was, say, 5000, then Vilma would devote one day's entire radio time to the customer. Only casually the announcer would say that Vilma products also were on sale in that store. Each retailer who buys at least 500 pesos worth of Vilma products gets booklets on cosmetics to distribute among his customers and about 300 tickets with numbers announcing that a gift set of Vilma's will be raffled in that particular store.

During December and the first half of January, Mexico is full of festivals as a remembrance to the far-off days when Mary and Joseph wandered about Palestine looking for shelter (posado). The typical "Posados" are organized in families, clubs, by firms, banks, schools and public offices. So Vilma ascertains where and when a posado is planned and sends some of her merchandise to be given away or raffled among the guests. Lately, this has become so popular that the entertainers themselves ask Vilma to send gift sets and in return promise to say a few words about the products.

WOMEN BULL-FIGHTERS GET GIFT SETS

When Conchita Cintron, a Spanish bull-fighter, performed in the big Toreo, 30,000 people attended. After she killed her second bull, a man approached and presented her with a beautiful gift box and the congratulations of Vilma. The radio publicized the event all over Mexico. The same is done whenever and wherever a "queen" is elected; Vilma is always studying the possibilities of having her firm mentioned and the thousands of samples and gift boxes she gives away repay her well.

Vilma now has an output of about 500 items a day, which amounts to 20,000 or 30,000 pesos in sales each month. All sales are for cash or on credit of 30, 60 or 90 days to known customers. Nothing is sold on commission. The overwhelming majority of customers pays promptly. Discount is from 20 to 35 per cent, according to the lot ordered and the kind of customer concerned.

Two years ago when her native country, Czechoslovakia, ceased to exist, Mrs. Schwarz arranged bank credit and bought raw material from Europe for four years in advance. At that time, the dollar exchange was still 3.60 so that, when her stock was complete, the average rate of what she had spent was about four pesos for a dollar. Later, the dollar leaped to 6. All prices rose, but Vilma's didn't. So she obtained a part of the clientele of other cosmetic firms whose prices were too high.

Mr. Schwarz, who has joined his family in Mexico City, has found appropriate means to keep the stored raw material fresh for years. Jan, a son, who is a senior in chemistry at the National University, helps his mother as does also daughter Barbarita. Since the not too far off days of the garden laboratory in the North, Vilma products have become popular all over America south of the Rio Grande.

Vilma so far has released no advertising in other countries, yet orders come from Panama, Cuba, Costa Rica, etc. As Mrs. Schwarz does not wish to augment her staff, she gives sales licenses in various countries.

Syndicate Store Packaging

by HARRY HERMAN*

HOW does a package appeal to the buyer from the customer's viewpoint? Does it attract? Is the color predominant? Is the color sufficiently predominating to strike the eye? Is it blinding to the eye? Or is it just nothing at all? Does the wording of the package convey in simple form everything that is necessary to sell the article to the customer? Does the wording tell at a glance its use—or is the item a blind one which means that it must be handled by the customer, explained by the salesgirl, etc.? Salesgirls in syndicate stores, as a rule, do not sell the customers—it is the package appeal which draws the trade.

Is the item packed appropriately? Is the item in the correct type package? You would not have a wrench wrapped in cellophane, nor would you put jewelry in a tin box. In other words, do the article and package synchronize?

Is the package of the type that will fit on a syndicate store counter in conformance with the space that would be allotted to that same class of merchandise? Does the package permit of good mass display stacking without concealing the item, as against the department store method of displaying only one package on the counter?

Does the package protect the contents? For instance, is it protected as much as possible against human hazards such as tampering and pilfering? Is it protected against atmospheric conditions such as humidity and cold, and physical hazards such as dust, scuffing, earmarking, etc.?

* Toilet Goods Buyer, H. L. Green Co., New York, N. Y.

Protecting Markets

FOR those who may not be sufficiently farsighted to see the reason for continuing advertising during the present program of national preparedness in order to protect markets for post-war days, there is one reason for advertising in normal times that still applies, and doubly so. That one is the turnover in personnel.

Things are moving fast these days; and they are going to move faster from now on. Due to many factors, and especially the building up of the armed forces of this country, the old standby buying influences which have been so faithful in the past are going to be scattered to the four winds. Even those who are not inducted into military training are being shifted from post to post. All this is breaking down heretofore well organized "inside" channels to business and leaving in their place hurdles which must be negotiated. In addition, the great expansion of industrial organizations is bringing into the picture many new men who gradually will assume importance in the buying process. Thus, this unprecedented turnover and shifting of personnel not only creates an immediate sales problem but raises the question as to who is going to be what and where when the new day dawns.

One of the most important functions of advertising and one of its most economical factors is its ability, unequaled by any other instrument, to keep all buying influences covered and cultivate them until they may be reached by the sales force.—*Industrial Marketing.*

Cosmetics Exports in 1940

THE VALUE of United States exports of toilet preparations during 1940, according to the Bureau of Foreign and Domestic Commerce, was as follows:

Classification	Value
Dental creams	$1,607,307
Other dentifrices	135,264
Talcum powder in packages	502,983
Face and compact powder	442,547
Cold creams	148,507
Vanishing creams	112,844
Other creams, lotions and balms	304,593
Rouges	188,420
Lipsticks	685,848
Other cosmetics	166,077
Manicuring preparations	302,990
Depilatories and deodorants	67,486
Hair preparations	515,024
Perfumery and toilet waters	163,540
Other toilet preparations	443,444

Imported Perfume Prices

WHAT will importers do about prices now that their product is made and bottled in the U.S.A., was the question we asked. And now come letters about it, so far unanimously of the opinion no reduction should be made. Yet some retailers, at least those we talked to, feel that if prices are to remain at the current level the importers should share a little of the gravy with them in the form of larger discounts. If the importers are to save a sizable import duty, say they, why can't we have some of that saving? Even though there will be some duty to pay on what little essential dribbles in, and other taxes may increase mightily there will still be room enough to do something about retailers' discounts.

There'll be something to say about that, both by retailers and manufacturers. And when manufacturers think of the demonstrations, both fixed and traveling, advertising allowances to retailers, promotions, space rentals, P.M.s and all the other *cumshaw* for retailers' benefit, there'll be something more to say. We look for some kind of action in this direction, with a certain amount of unease and dissension before things settle down.—*West Coast Druggist.*

Upholstery Cleaner

A PRACTICAL formula for an upholstery cleaner which will lend itself to a variety of uses, especially in keeping up the reception room appearance, is given in the latest government publication on "Washing, Cleaning and Polishing Materials."

Pure olive oil soap	2 oz.
Pure cocoanut oil soap	2 oz.
Hot water	3 gal.
Glycerine	4 oz.
Borax	1 oz.
Ethylene chloride	2 oz.

Dissolve the soaps in the hot water, then add the glycerine and borax. When the solution becomes lukewarm add the ethylene chloride.

Before using this preparation, a trial should be made on a small, inconspicuous area and care should be taken throughout that the fabric does not become any wetter than necessary. It is advocated that the solution be applied sparingly to a square foot or so at a time, by means of a soft brush, cloth or sponge, using a quick, light stroke to create fluffy suds over the area. To prevent too deep penetration, the suds should be quickly wiped off, or pressed off with a dull knife. The rest of the soap is removed by applying clean cloths wrung out of warm water. The use of a vacuum cleaner with a hose attachment is also suggested.

Business Fifth Column

THE fifth column of business is the "rapidly growing consumer movement which is actually eating away at the security of the public it professes to protect," Philip G. Lasky told the Oakland, Calif., Advertising Club in launching a consumer relations campaign.

"The four columns upon which American prosperity stands," said Mr. Lasky, "are production, distribution, advertising and consumption. They are strong because of unity; kill advertising and the rest will atrophy." In his talk Mr. Lasky urged that business cooperate in an extensive campaign to educate the buying public to the fundamental truths of what is responsible for the nation's prosperity and the part advertising plays. "Then," he said, "this fifth column will be scorned for what it is, the subversive element of our mercantile peace and welfare."

OIL OF BOIS DE ROSE

Second of two articles . . . Oil of Bois de Rose Cayenne, Brazilian and Oyapock type . . . Physical and chemical properties . . . Production of each . . . Export statistics to various world markets

by DR. ERNEST GUENTHER

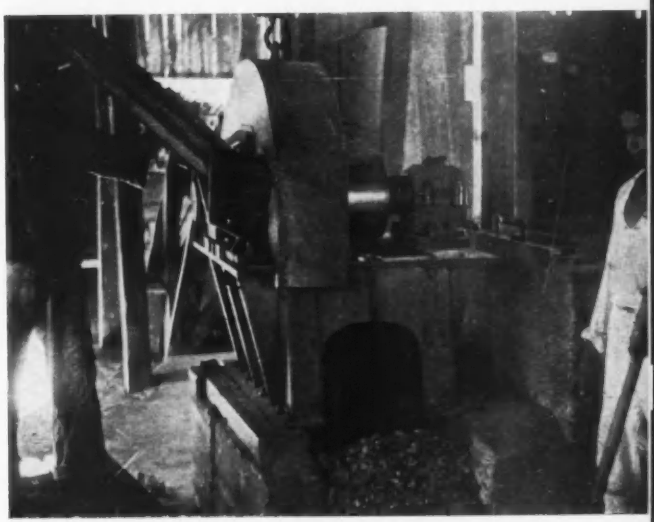
Chief Research Chemist,
Fritzsche Brothers, Inc., New York, N. Y.

THERE are two types of South American rosewood oil distilled from the fragrant wood of *Aniba rosaeodora*. One variety of this evergreen of the *Lauraceae* family occurs wild in the dense forests and jungles of French Guiana, and the other is found in the lower Amazon basin in Brazil. Thus, the two varieties differ in regard to botany and habitat, with the result that the odor and constants of their essential oils are also different.

(I.) OIL OF BOIS DE ROSE CAYENNE

Because of the numerous varieties, some confusion has prevailed regarding the botany of the tree which, according to F. W. Freise,[1] is now classified as *Aniba rosaeodora* Ducke. This tree occurs in the vast forests of French Guiana between the rivers Maroni and Oyapock, and a similar variety is found south of the frontier in the Brazilian state of Pará. This "Cayenne" rosewood oil, named after the principal shipping port of French Guiana, was formerly distilled in Europe and North America from logs imported from Cayenne. The high cost of shipping the heavy logs across the sea and the considerable loss of oil by evaporation during transport made it advisable to erect stills right in the growing regions of Guiana. Of course, the difficulties connected with distilling in the jungle and the general primitive conditions prevailing in those remote and hardly accessible regions left much to be desired in regard to efficient working methods. There are, undoubtedly, certain periods of the year when the oil content of the wood is exceptionally high, but it is not always possible to fell the trees at that time. On the other hand, the cut trunks left lying in the woods, exposed for months to sun and rain, lose much of their oil content. Still, it proved more advantageous to distill in small local posts instead of shipping the wood to Europe and North America.

From 1927 to 1929, forty to fifty such installations were in operation and 187,220 pounds of oil were exported from French Guiana during 1929. Improved methods of distillation gradually brought about a better quality of oil, the perfume of which was considered superior to that of Mexican linaloe oil. The perfume and soap industries and especially the manufacturers of synthetics (linalool) readily absorbed the Guiana oil which for years remained the leading oil of its type on the market. This demand brought about reckless exploitation of the trees and, since no provisions were made for replanting, the wood cutters had to penetrate to ever more remote and less accessible regions in the interior, thereby pushing south into Brazil, across the border river Oyapock. In French Guiana the trees finally became so scarce that in 1932 only three enterprises were able to continue operation. During the last few years, five to six tons of oil were exported annually from French Guiana and the adjacent parts of the Brazilian state of Pará. This decline was accentuated by the new and startling development of the bois de rose oil industry in the lower Amazon region of Brazil.



Before distillation, rosewood is chipped in regular sawmill

(II.) OIL OF BOIS DE ROSE BRAZILIAN

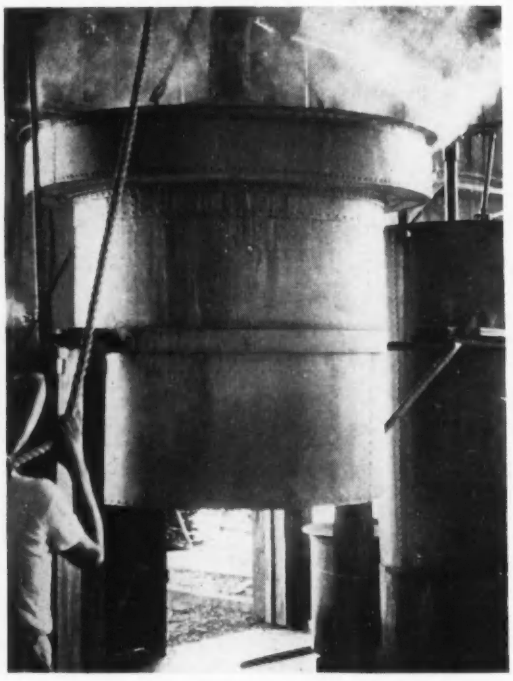
According to Freise,[1] the rosewood tree exploited in the Amazon basin is *Aniba rosaeodora* var. *amazonica*, Ducke, a variety of the bois de rose growing in French Guiana. Its wood has a uniform

[1] *Perfumery & Essential Oil Record*, Sept., 1933, 307.

gray or light yellow color, with a somewhat silky gloss. The difference between the Amazon and the Guiana varieties is only slight and concerns anatomic features such as leaf nerves, size, and color of blossoms.

Freise[1] enumerates other varieties from which oils similar to bois de rose oil are sometimes produced. They may be omitted in this survey as of no real significance in actual production of the oil.

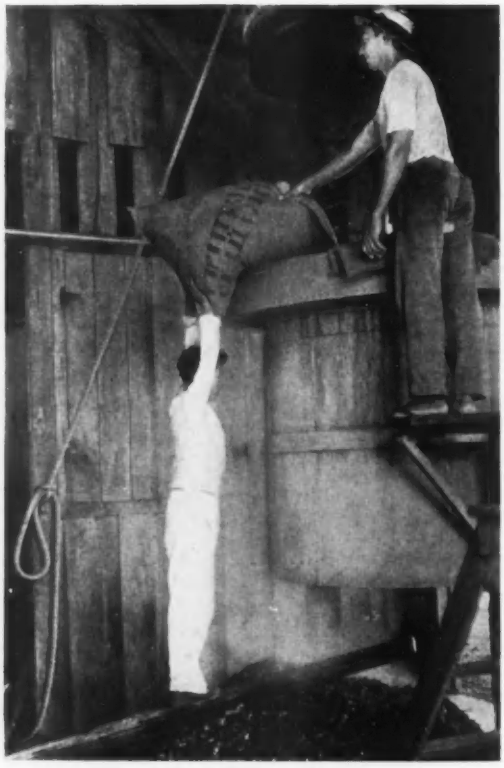
The Amazon variety grows wild at more elevated altitudes along the tributaries of the right bank of the lower Amazon, in the states of Amazonas and Pará. These tributaries are the Autaz, Madeira, Andira, Maués and a few smaller ones. It seems strange that the tree does not grow on the left (northern) side of that mighty river. Actual distillation takes place in the following municipalities: Parintins, two distilleries; Barreirinhas, one distillery; Maués, one distillery; Itacoatiara, three distilleries; and Manáos, two distilleries. About 70 per cent of the total output of oil originates from the state of Amazonas and 30 per cent from the state of Pará, the small quantity of oil produced south of the Oyapock River in the northern part of the state of Pará not being included. This quality, as pointed out, somewhat resembles the Guiana oil.



Live steam at 30 pounds pressure is blown through the stills

THIRTY YEARS OF PRODUCTION IN BRAZIL

The beginning of rosewood oil production in the Amazon basin around Maués and Itacoatiara dates back about thirty years. Because of too marked a difference in the odor of the Brazilian and the Guiana oil, the trade for a long time refused to adopt the Brazilian oil as a substitute for the Guiana oil. This attitude still prevailed when, around 1927, about 200 tons of oil were produced. Brazil encountered great difficulties in disposing of this large quantity and about 80 tons remained in the hands of the producers and exporters in Manáos and Belem (Pará). Overproduction and sharp competition caused such a decline in prices that they covered only part of the cost, with the result that for about two years production was discontinued.



Iron or copper stills may contain 200 to 500 kilos of chips

These unfavorable conditions forced the state of Amazonas to take drastic steps toward organizing and protecting the new and promising industry. Decree No. 1455, edited on April 9, 1932, stipulated that only a limited quantity of bois de rose oil could be produced yearly and only by those distillers who obligated themselves to replace every cut tree with a newly planted one. Practically all producers subscribed to this obligation for the duration of five years, with the intention of renewal for another five years. Thus, the Cooperativa was created which, after many initial difficulties, hostilities, mistakes and failure, finally developed into the Consorcio dos Extractores de Essencias Vegetaes which today holds a very powerful, if not monopolistic position in Amazonas and most of Pará state. In close collaboration with the government, the Consorcio decrees each year a maximum export figure and the corresponding total quantity of production, with a certain quota allotted to each member. The Consorcio, acting also as the price establishing, exclusive sales and export agency, thus grew into a powerful organization which comprises nine producers in the state of Amazonas and six in the state of

Pará. It installed modern distilleries in different localities and contributed greatly to the production of a higher quality oil.

PRODUCTION OF ROSEWOOD

As pointed out, the trees grow wild along the southern bank and tributaries of the lower Amazon River. Remote and uncultivated, the collecting of all products from this wild region is beset by many difficulties. Few laborers, either colored or half-breed, can be induced to penetrate its jungles and live there for months, exposed to all kinds of hardships and diseases. Teams of experienced woodsmen, therefore, have to be organized, financed and provided with sufficient food and general supplies before they can be sent off to the forests. The cutting of timber, like most of the work in those regions, must be done during the period of low water between July and December, so that the logs can be shipped when the river rises from January to June. The difference in the water level is tremendous, amounting to 45 feet at times. The high water penetrates far into the woods and the logs can be transported down the river to the distilleries which are located along the banks. Since the wood is heavier than water, the logs cannot be floated as rafts but must be shipped on lighters towed by motor boats or steam launches. The felling of the trees is organized and financed either by the distilleries which own their own boats or by independent companies and contractors who sell the wood to the distilleries. Only the trunks and the larger branches are shipped and used for oil distillation. It is quite possible that the cutting of the wood during some other time of the year would give a higher yield of essential oil, but the felling, like so much other work in the Amazon basin, depends entirely upon the rise and fall of the river and, under present conditions, there is no other means of transportation.

So far only wild-growing trees have been cut. This has resulted in such crude and reckless exploitation of the rosewood trees that the cutters now have to penetrate to regions ever more remote. For this reason, the government, in collaboration with the Consorcio, has enacted strict legislation by which a new tree must be planted by the distillery for every 20 kilos of rosewood oil exported. The replanting must be carried out under the supervision of a government inspector who signs a receipt for every planted tree. Young trees growing wild around old trees serve for replanting; the new plantings are laid in rows, if possible, on jungle ground cleared of underbrush.

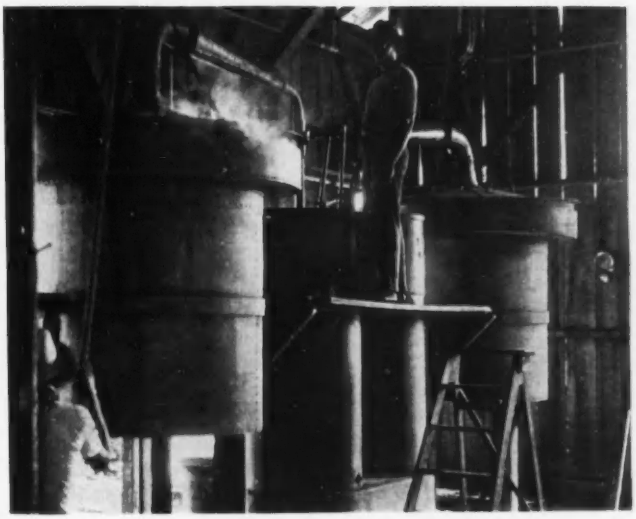
Since these regulations were put into effect only a few years ago, the planted trees are still too young to be cut. A tree should be at least ten, if possible fifteen, years old before being felled and should have a trunk diameter of from 12 to 25 inches.

At the distillery the wood is either distilled immediately or stored. Previous to distillation, the logs are cut lengthwise with axes and subsequently chipped in regular sawmills, as used in paper factories. In principle they consist of a rapidly rotating flying wheel provided with three slanting blades. The chips are then transported to the stills in wheelbarrows and distilled immediately.

The stills are quite modern, made of galvanized iron or copper, the latter being preferred because it lasts longer, does not wear out so easily and can always be used again. The stills hold from 200 to 500 kilos of chips, those holding 500 kilos being preferred because they are more economical. One distillery houses several stills.

Live steam of about thirty pounds pressure, generated in a separate steam boiler, is blown through the still; a Florentine flask separates oil and water. The distillation waters are not cohobated but simply discarded. Distillation of 500 kilos of chips lasts about two and one half hours. Then the exhausted plant material is discharged and sun-dried so that it may be used again as fuel, together with regular firewood.

The yield of oil is usually about 1 per cent but varies from 0.7 to 1.2 per cent, according to the localities from which the wood originates. The highest yields are obtained with wood from Barreirinhas and Parintins, the lowest with Autaz (Manáos-Itacoatiara) wood. Under normal conditions a distillery carries out two distillation operations a day, but could double or triple the number if a higher quota of oil were assigned to it by the Consorcio.



Distilling 500 kilos of chips takes two and one half hours

TOTAL PRODUCTION

At present Brazil produces about 80 tons of rosewood oil a year. The government permits production up to 100 tons and more a year, provided 80 tons of oil can be sold by the Consorcio either in the form of shipments or contracts made before the end of the year. This point is very important and affects the entire policy of the Consorcio, which endeavors to assure a sufficient supply to satisfy the world market, promote the sale of oil in general and avoid overproduction and unprofitable prices. The latter should remain on a stable level in the inter-

est of producers and consumers alike. As pointed out previously, many months are required to organize the producing campaign in the remote interior of Brazil where working conditions are so difficult. As a consequence, the Consorcio must know long ahead of time just how much oil can be produced safely in order that a definite quota may be assigned to each member.

EXPORT FIGURES

The following quantities of rosewood oil were exported from Brazil during the past few years:

1937		
To New York		52,791 kg.
To Hamburg		15,096 kg.
To France		47,138 kg.
To London		8,736 kg.
To Holland		5,460 kg.
To various countries		1,485 kg.
	TOTAL	130,706 kg.
1938		
From Manáos:		67,943 kg.
From Pará:		24,826 kg.
1939		
From Manáos:		127,693 kg.
From Pará:		57,484 kg.

(III.) BRAZILIAN ROSEWOOD OIL, OYAPOCK TYPE

As pointed out previously, some rosewood oil is distilled also in the northern part of the Brazilian state Pará, south of the Oyapock River, which runs between Brazil and French Guiana. The small quantities—only about 4 to 5 tons a year—are produced in a distillery which is also a member of the Consorcio.

Exhausted material is discharged and sun-dried for fuel use

The trees growing in that region probably belong to a botanical variety similar to that exploited in French Guiana. Therefore, the Oyapock type of oil is somewhat different from the oil produced in the Amazon basin and, in regard to odor and constants (slight laevo-rotation!), stands between the Amazon and the Guiana type. For this reason the Oyapock oil has always been sold at a moderately higher price than the Amazon oil. Before the outbreak of war, Germany was its principal buyer.

PHYSICAL AND CHEMICAL PROPERTIES

The Brazilian rosewood oil differs from the Guiana oil chiefly in regard to its higher specific gravity and its dextro-, or very slight laevo-, rotation. The odor is somewhat harsher, suggesting the presence of camphor, cineol and borneol, while the Guiana oil is smooth, mellow and sweet, like linalool. Rectification improves the odor of the Brazilian oil.

Shipments of genuine oils received by us during the last five years showed the following limits:

Specific Gravity @ 15° C:	0.876 to 0.889 (Usually 0.880 to 0.885)
Optical Rotation:	—1°45′ to +4°40′ (Usually —1°30′ to +3°30′)
Refractive Index @ 20° C:	1.4620 to 1.4659 (Usually 1.4620 to 1.4645)
Saponification Value:	1.4 to 2.8 (Sometimes very slightly higher.)
Solubility:	Soluble in 3.5 to 4.5 and more parts of 60 % alcohol by volume.

R. de Menezes Veiga, chemist of the Consorcio whom the writer had the pleasure of meeting in Manáos, indicated the following limits for oil of bois de rose, *Aniba rosaeodora* var. *amazonica*, Ducke:

Specific Gravity @ 15° C:	0.875 to 0.881
(Specific Gravity @ 20° C:	0.872 to 0.878)
Optical Rotation:	—0°30′ to +4°30′
Refractive Index @ 20° C:	1.4580 to 1.4610
Acid Value:	0.923 to 1.250
Saponification Value:	1.460 to 1.670
Ester Value:	6.5 to 6.7
Solubility:	Soluble in 4 to 6.5 volumes of 60% alcohol.
Total Alcohol by Formylation:	86.4% to 91.8%

These figures differ slightly from those found by our New York laboratories in imported lots of Brazilian rosewood oil. Mr. Veiga pointed out that our higher limits for specific gravity and refractive index must, very likely, be attributed to the influence of age during storage and transport of the oils from the interior of Brazil to New York—

Normally, a distillery has two distilling operations daily

all his figures referring mainly to freshly distilled oils. Regarding optical rotation, Mr. Veiga claims that an optical rotation higher than —0°30′ is seldom observed in oils distilled in Amazonas but that laevo-rotation as high as —2°40′ has been found in Oyapock oils.

LINALOOL CONTENT

The linalool content is best determined by fractionation, as formylation in the cold—because of the presence of geraniol, nerol and terpineol—would give values somewhat too high. According to Mr. Veiga, fractionation under atmospheric pressure yields:

1) Up to 100° C..... 1.2%
2) 100 to 194° C..... 4.3%
3) 194 to 205° C.....85.8% (linalool fraction)
4) Residue 8.7%

Refractionating the third fraction and separating the fraction 197° to 198° gives about 70 per cent of fraction three or 60 per cent of the original, complete oil. Oils of highest quality contain 88 to 89 per cent of fraction three; medium quality oils about 85 per cent and inferior oils even less. The Consorcio in Manáos does not accept oils which assay less than 85 per cent third fraction.

The Consorcio has its own analytical laboratory where each shipment is examined and lots of substandard quality are rejected. As far as we can judge from our analytical records, this control, together with improved methods of distilling, seems to have brought about during the last year or two not only a marked amelioration of the quality but also greater uniformity in regard to constants.

CHEMICAL CONSTITUTION

Chemical investigation of the Guiana type of bois de rose oil revealed the presence of the following constituents: l–linalool (more than 80 per cent) found by Morin[1] and Barbier;[2] terpineol (about 5 per cent) and geraniol[1] (about 1 per cent); methyl heptenone and nerol[2] (about 1.2 per cent). Schimmel & Co.[3] furthermore established the presence of small quantities of cineol, dipentene, furfural and probably iso-valeric aldehyde. The same investigation revealed the presence of an aliphatic terpene. It was also proved[4] that the first runs of the oil contained small quantities of methyl heptenone.

[1] *Compt. rend.* 92 (1881), 998 and 94 (1882), 733. – *Ann. de Chim. et Phys.* V. 25 (1882), 427.
[2] *Compt. rend.* 114 (1892), 674 and 116 (1893), 883.

ADULTERATION

Since the enactment of the control exercised by the Consorcio in Manáos, the shipments reaching the United States and Europe have been of good quality. Any adulteration, therefore, is carried on mainly outside of Brazil and usually consists of the addition of Japanese oil of shiu (ho oil) which is distilled from a camphor tree variety. This oil is, in normal times, lower priced than rosewood oil and, because of its similar chemical constitution, is very suitable for the purpose. Oil of shiu, however, contains a small percentage of camphor which can be identified according to the method described by Gildemeister and Hoffmann.[5]

[1] *Bericht von Schimmel & Co.*, April, 1909, 64.
[2] *Reports of Roure Bertrand Fils*, Oct., 1909, 45.
[3] *Bericht von Schimmel & Co.*, April, 1912, 84.
[4] *Ibid.* Oct., 1911, 60.
[5] *Die Ätherischen Öle*, Third Ed., Vol. II, 704.

New Labeling Machines

AT THE recent packaging show in Chicago, Ill., two new labelers were found particularly intriguing. The first was a modification of the semi-automatic, using the usual vacuum label pickup designed to affix a small label to each of two small containers simultaneously.

The containers were placed in the bottle rests manually and discharged therefrom mechanically by a device that dropped them into a chute where they slid into a suitable receptacle below. Thus the operator's two hands were utilized in doing gainful work and the labeler's capacity was nearly doubled.

The second was designed and built by a manufacturer of tobacco packaging equipment for the liquor industry. It affixes federal strip stamps over the closure and down on the neck, fully automatically at speeds up to 120 per minute. It undoubtedly could be modified readily to apply a decorative label to cosmetic containers that would at once render them distinctive and relatively pilfer-proof.

Management

A SUCCESSFUL business must have capable management and direction, and if it is to continue to succeed, there must also be in its organization men of capacity for more responsible assignments. With this thought in mind, management must take inventory of the men down the line. Are they limited to their immediate or closely related jobs?—*Leonard Firestone.*

The greatest need of American business is the adoption of proper compensation plans for executives and supervisors.—*George S. May.*

desiderata

Comment on interesting new chemical developments and their application in the creation and manufacture of toilet preparations

by MAISON DENAVARRE

Skin Rash—The *J.A.M.A.* stresses the point that girls working in production lines where viscose caps are placed over bottle tops should wash off the preservative fluid the caps come shipped in, if they want to prevent the rashlike eruptions that sometime occur on the hands. While viscose caps are used a great deal more in other industries than in cosmetic packaging, there are some companies using them. Simply wash off the fluid the caps come shipped in, and you will overcome a lot of sensitization.

The Old Customer—Most suppliers are taking the best care of their old and steady customers, and *then* taking care of any others. A man who jumps from one source of supply to annother is in a "jam" today. He is no "steady customer" with any supplier. With priorities, quotas and other difficulties in obtaining raw materials, a supplier can get only what he *regularly* needs, or some part thereof. Stay with your regular supplier through this uncertain period. You will sleep better.

Anti-Gray Hair Vitamin— It has been reported in the literature that p-aminobenzoic acid is the anti-gray hair vitamin. There has been much ado about this. But now it is claimed by others that this chemical is not the factor that affects the color of hair. Other factors of the vitamin B complex are supposed to have this property. Anyway, if you have been thinking of making a hair tonic for gray hair containing p-aminobenzoic acid, better hold off until the facts are substantiated.

Manicure Products—It will not be amiss to check into the possibilities of using ethyl cellulose as a nail enamel ingredient in view of the fact that nitrocellulose may become more difficult to obtain. You might never have to make the change. Who knows? But if you do, and you have another type of cellulose ester that might be used, everything will be all right. Other cellulose esters worth investigating are the acetate, acetopropionate and acetobutyrate.

Shampoo—This is a good time to start working with other materials for shampoo—materials other than coconut oil or coconut fatty acids. While you are at it, try domestic oils or fatty acids made from them. Vegetable oils are available in unlimited quantity. Remember "tall oil."

Plugged Cream Lines—If the tank outlet on your cream emulsifier has been troublesome because of cream setting in it, you can overcome the difficulty in two ways. One way is to use a jacket of some kind—electric, steam or water. Another way is to use one or more of the inexpensive *infra red* lights that take about 250 watts of electricity. These lamps give off heat *pulenty*. They radiate enough heat to burn your hand. Just focus the lamp on your cream outlet and forget about it. This lamp will have a lot of other applications, too. It is supposed to last 5000 hours on an average. Temperature obtained varies with the distance the lamp is placed from the object to be heated. Anyway, the lamp is hot enough to melt paraffin wax. This new form of radiant heating has been made available for common use. It has a self-contained reflector and can be plugged into any 120 volt electric outlet.

Lipstick Containers—Looks like a good time to investigate paper lipstick containers. It is quite possible to produce some nice looking effects, with good package life. The main drawback in the past has been that the ordinary paper package couldn't stand the gaff of handling or mishandling in women's handbags.

Dentifrice Wetting Agent— Another dentifrice wetting agent is now available. It is a pure material that has a pleasant odor and taste. The price is in the right range. It is a white powder which really foams like the *dickens*. It can be used for powders, paste and liquid dentifrices and it goes well with all flavors.

Bag Filler—There now is available a new bag filler for quantities of from three ounces to two pounds. The machine is simple, consisting of a hand-operated hopper and a scale to aid in exact filling. Bath salts and similar bulk products can be filled in this manner.

Change Face Powder Now—If you are afraid that the supplies of zinc oxide may not be adequate as war continues, investigate titanium dioxide. It has three times the covering power of zinc oxide. Or you might blend your zinc oxide with titanium dioxide and make your stock of zinc oxide go a lot further. A mixture of

the two oxides is much easier to handle than the titanium dioxide alone. You might just as well change over to magnesium stearate in place of zinc stearate while you are at it, too. You'll probably have to do it later.

New Vegetable Oil—A new South American vegetable oil has been offered recently by a New York jobber. It has an odor of bitter almonds and causes some skins to tingle a bit. This oil is not a volatile oil; it is definitely a fixed oil. Its various criterions are typical of such oil. They are: acetyl value 12.2; saturated acids 30.37 per cent; unsaturated acids 63.8 per cent; unsaponifiable matter 1.39 per cent and an iodine number of 70.2. The unsaturated acids consist of more than 50 per cent oleic acid and almost 13 per cent of linoleic acid. The unusual property about this oil is its high percentage of saturated fatty acids.

Microcrystalline Waxes— If you have not as yet investigated the microcrystalline waxes derived from petroleum, you had better do so at once. Those waxes can hold in solid solution from three to almost fifteen times their own weight of mineral oil. If used in excess, they tend to produce a sticky effect. Properly blended with paraffin waxes, they can be easily used. Formulations of liquefying cleansing cream, formerly using comparatively large quantities of ozokerite or ceresin (containing ozokerite), can be made with modifications, using microcrystalline waxes. The same applies to lipsticks. Some of these waxes have a very high melting point. Certain ones are harder to the touch than others. All are described in THE AMERICAN PERFUMER Bulletin on Waxes, available to subscribers upon written request.

Excise Taxes

IF sales or excise taxes are increased the problem of absorbing them or passing them on must be considered. If they are to be passed on all manufacturers must do it. If some absorb them then all must do it. It is intended that sales and excise taxes should be passed on and paid by the ultimate consumer. That is why manufacturers receive little sympathy when they complain about them. If manufacturers bear the burden it is their own fault, government officials say.—*T.G.M.A. of Canada.*

QUESTIONS & ANSWERS

348. Clear Hair Lacquer

Q. *We are seeking a formula for a clear hair lacquer. If you have any information regarding this item, we will greatly appreciate hearing from you.* B. C., N. Y.

A: A formula for a clear hair lacquer has been mentioned in the Q & A Department in the following issues of THE AMERICAN PERFUMER: June, 1939, page 52; March, 1939, page 54; April, 1939, page 82, and November, 1938, page 54. The water soluble resins and the solubilized shellac described in these formulas are obtainable from particular suppliers whose names are sent to you under separate cover.

349. Use of Lanolin

Q: *We are interested in selling a permanent wave solution containing lanolin. Will you please make suggestions for an experimental formula?* S. P., Wis.

A: The best way to work lanolin into permanent wave solution is to dissolve it in oleic acid and emulsify this mixture in the solution itself. The amount of lanolin needed will vary from one-half per cent upward, depending upon your product and the type of hair it is intended to wave. Damaged hair will require the most lanolin.

350. Absorption Base

Q: *We have seen several formulas in your magazine that call for absorption base and would like to know if there is anything that you recommend.* S. C., Ala.

A: Absorption base is the generic name given to emulsifiers capable of producing emulsions of water-in-oil. Invariably, these products are made from lanolin isolates dissolved in hydrocarbon mixtures. These have been described in detail in THE AMERICAN PERFUMER Bulletin on Absorption Bases, which is now out of print. Sorbitol and mannitol oleates have also been used to produce emulsions of water-in-oil. From 2 to 5 per cent of the ester is dissolved in a hydrocarbon mixture containing from 5 to 10 per cent of lanolin and the resulting product will emulsify up to an equal weight of water.

351. Permanent Waving

Q: *Please send a formula for a permanent waving solution using monoethanolamine sulfite. Who sells this material? What are "cream oil" solutions?* M. T., Wis.

A: The name of the supplier has been sent to you by letter. This new sulfite is used in the same manner as any other sulfite. Keep in mind that the sulfur dioxide content of monoethanolamine sulfite is only about 40 per cent of that found in standard sulfites, and accordingly a larger amount of this new material will have to be used. Without knowing the type of waving system or the kind of hair that is to be treated, it is impossible to offer a formulation. A short article on this appeared in THE AMERICAN PERFUMER in the June, 1940, issue, page 40. A cream oil solution is a standard permanent waving solution containing emulsified oil. Such oil is known in the trade as "permanent wave oil." Permanent wave oils are described in detail in a Wetting Agents Bulletin, which unfortunately is now out of print. Ordinarily, permanent wave oils are specially made sulfonated oils containing a solution of insoluble fat, such as lanolin, castor and other oils, which upon mixing with a permanent wave solution produces an emulsion.

Packaging Portfolio

PRINCE MATCHABELLI: Three of Hearts is a cologne trio in a playing card box. Star-studded flacons contain the popular scents.

RICHARD HUDNUT: Yanky Clover Flower Pot joins the line's magenta and yellow packages. An ounce of Yanky Clover perfume is sunk in the flower pot.

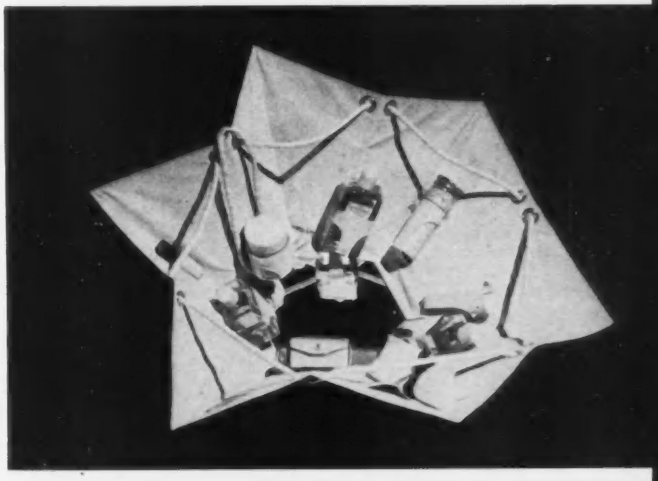
DELETTREZ: Designed to provide convenience in eye baths, especially when traveling, this firm now packages 40 paper eye cups with its eye lotion.

ELMO SALES CORP.: Margo toiletries are re-packaged in pink, blue and white containers and to the line has been added a talc. Other products are dusting powder, sachet and eau de toilette.

MME. RUBINOFF COSMETIC CO.: A new travel kit, handbag style, of tan pelican grain leather, or black alligator, with pink moire waterproof lining, holds nine regular size cosmetic items.

LENTHERIC: Eau de cologne Iceberg comes in an icicle flacon, two sizes. White designs sprinkle the package of silvery blue.

HARRIET HUBBARD AYER: Five beauty preparations including the new Beauty Mask are arranged in this new package of pale pink.



ELIZABETH ARDEN: Starfish Beach Kit holds suntan and make-up items. It comes in a variety of colors and is lined in rubber.

PARFUMS SCHIAPARELLI: A Shocking perfume refill with tiny funnel attached also new sachet packages are offered by this firm.

JACQUELINE COCHRAN: The new Merry-Go-Round scent is used for bath items, lipstick, rouge. Blue and silver packages are used.

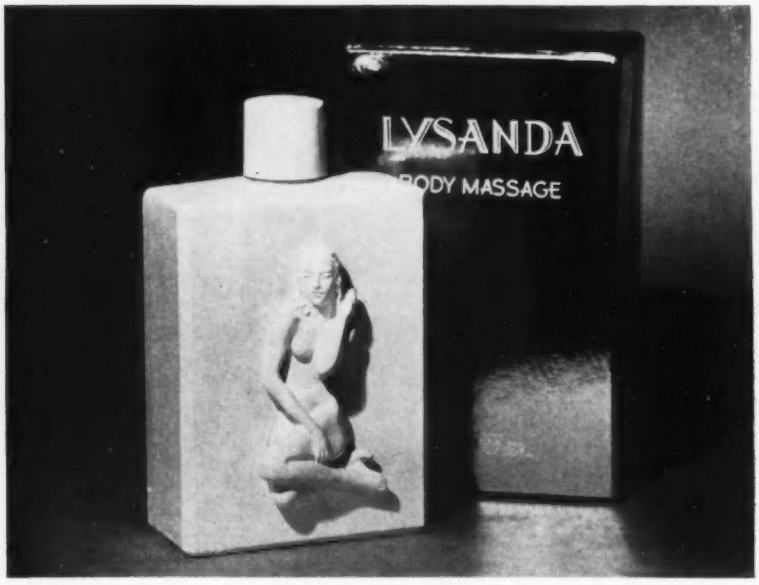
PARFUMS CORDAY: The Tzigane scent appears in a lighter version, Eau de Tzigane. It is offered in a tall fluted flacon.

BARBARA GOULD: Skylark perfume, cologne, make-up and bath items come in pink and blue pastel packages with outdoor scenes.

PARFUMS ORLOFF: Bridal Trousseau Chest, packaged to order, includes satin pajama case, pillows, wire baskets filled with sachets and shirred satin hangers.

LUCIEN LELONG: Solid cologne and liquid sachet, two new products of this house, make their debut in the new Balalaika scent which includes bath items and make-up. Bright-colored dancing figures cover the white background of the packages.

BELLIN'S WONDERSTOEN CO.: This firm's new Skin Lotion is for use with its Wonderstoen or alone as an all-purpose lotion. It comes in a six-ounce size.



LYSANDA, INC.: A line of cosmetics designed for the body are presented in pure white bottles, each one decorated with a sculptured feminine figure. The cover of the outside carton is blue with white imprinting on the cellophane wrapping.

BABS CREATIONS: Hurdy Gurdy eau de cologne is presented in a red, white and blue replica of the music box and decorated with a tiny monkey on a chain.

YARDLEY & CO.: A concave underside, designed for convenient handling and economy, features the new square tablet now used for Red Roses, Fern and Verbena Leaf bath soap. Each of the scents has its own package with appropriate motif.

ALCOHOLS IN ESSENTIAL OILS

Determination by acetylation in the presence of water soluble adulterants

by JOHN E. S. HAN

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THE acetylation method is based on the assumption that the essential oil is free from foreign matter which is acetylisable or removable through washing with water or brine. The results can be affected by water soluble adulterants in three different ways:

RESULT AFFECTED IN THREE WAYS

1. The adulterant is completely washed out from the acetylated oil in the course of analysis. The result would be the same as that obtained from the pure unadulterated oil.

2. The adulterant is acetylisable, but not completely removable by washing. The result would be higher than the pure essential oil, where the adulterant has a smaller equivalent weight than the alcohol in the essential oil.

3. The adulterant has a low boiling point and is present in large quantity. Under these conditions, acetylation might be incomplete at the end of two hours of boiling and the result might be irregularly low.

In actual practice the amount of adulterant added perhaps will be limited to 10 to 15 per cent. Too small a quantity may not pay for the work involved while too large a quantity may seriously affect the intensity of odor. Ethanol is the common adulterant used because it is cheap, harmless and can be made practically odorless. An oil containing 10 to 15 per cent of ethanol falls under class 2, because ethyl acetate cannot be washed out completely from the acetylated oil in the course of analysis.[1]

The author has further found, however, that water soluble adulterants, including ethanol, can be quantitatively removed from essential oil by washing with water previous to acetylation, and that the washed and dried oil yields, by the standard acetylation method, results quite close to that of the unadulterated essential oil. From the volume of essential oil obtained from 10 ml. of the adulterated oil by washing (D), and the specific gravities of the adulterated oil (A) and the washed and dried oil (B), the percentage by weight of the essential oil in the adulterated oil (E), can be readily computed from the formula

$$(E) = \frac{(B) \times (D)}{10\,(A)}$$

From this figure (E) and the alcohol content of the washed and dried oil found by acetylation (F), the actual alcohol content of the adulterated oil (H) can be calculated:

$$(H) = (E) \times (F)$$

The amount of water used in the washing should be sufficient to remove all the adulterant without causing undue loss or appreciable change in the composition of the essential oil. Small quantities of oil always escape from measurement, because certain amounts adhere to the measuring separator while others are carried away by the washings. This loss can be ascertained by experiments with known mixtures prepared from the same types of essential oil and adulterant. The average loss is added to (E), to obtain (Ec). Reasonably accurate results are obtained for alcohol in adulterated oil by using (Ec) in the calculations.

TABLE I—COMPOSITION OF SAMPLES

Sample No.	Description of Essential Oil	% By Weight	
		(1) Essential Oil	Adulterant
P_{20}	Peppermint Oil, Chinese Original	100.00	
P_{21}	Mixture of P_{20}	89.86	Ethanol, 10.14
P_{21w}	P_{21}, washed and dried	(100.00)	
P_{23}	Mixture of P_{20}	87.95	Methanol, 12.05
P_{23w}	P_{23}, washed and dried	(100.00)	
P_{30}	Peppermint Oil, Chinese, Partly Dementholised	100.00	
P_{31}	Mixture of P_{30}	84.82	Ethanol, 15.18
P_{31w}	P_{31}, washed and dried	(100.00)	
P_{32}	Mixture of P_{30}	84.80	Ethanol, 9.21; Ethylene Glycol, 5.99
P_{32w}	P_{32}, washed and dried	(100.00)	
C_{20}	Citronella Oil, Javanese	100.00	
C_{21}	Mixture of C_{20}	87.92	Ethanol, 12.08
C_{21w}	C_{21}, washed and dried	(100.00)	
C_{23}	Mixture of C_{20}	84.01	Ethanol, 10.18; Ethylene Glycol, 5.81
C_{23w}	C_{23}, washed and dried	(100.00)	

Figures in parentheses are assumed values.

ACCURACY THAT MAY BE EXPECTED

The purpose of this paper is to show under what conditions an adulterant can be removed without undue loss of oil and undue change in the composition of the oil and what accuracy can be expected from such a method.

EXPERIMENTAL

Materials Used: Reagents. All chemicals used, including acetic anhydride, were of reagent quality from reputable manufacturers.

a. Samples used in experiments: Essential oils. All the essential oils used in the experiments have been washed in the following manner: 500 ml. of essential oil was washed three times, using each time 100 ml. of water. The washed oil was thoroughly dried with anhydrous calcium sulphate and the filtered oil tested for water with carbon disulphide.

b. Mixtures. Prepared from washed and dried

TABLE II—ANALYTICAL DATA FOR 15 SAMPLES

Sample No.	(2) Specific Gravity 20° C	(3) Vol. of 10 ml. Sample after Washing Ml.	(4) Vol. of acetylated oil from 10 ml. Sample Ml.	Composition of Samples: Known or Assumed (5) Esters %	(6) Total Menthol %	Found by Direct Calculation: Esters (7) %	Dev. from (5)	Total Menthol (8) %	Dev. from (6)
P_{20}	0.9019		12.18	2.18	84.24	2.18	....	84.24	
P_{21}	0.8915	8.86	11.42	1.96	75.70			86.80	+11.10
P_{21w}	0.9024		12.14	(2.18)	(84.24)	2.23	+ 0.05	84.44	+ 0.20
P_{22}	0.8906	8.62	10.93	1.92	74.09			83.91	+ 9.82
P_{22w}	0.9022		12.20	(2.18)	(84.24)	2.20	+ 0.02	84.21	− 0.03
P_{30}	0.9032		11.62	3.19	63.22	3.19	....	63.22	
P_{31}	0.8869	8.25	10.59	2.71	53.62			66.50	+12.88
P_{31w}	0.9028		11.67	(3.19)	(63.22)	3.20	+ 0.01	63.03	− 0.19
P_{32}	0.9039	8.41	10.40	2.70	53.61			65.55	+11.94
P_{32w}	0.9034	....	11.61	(3.19)	(63.22)	3.18	− 0.01	63.29	+ 0.07
					"Total Geraniol"			"Total Geraniol"	
C_{20}	0.8951		11.97	....	86.48	....	....	86.48	
C_{21}	0.8856	8.61	11.26	....	76.03	....	....	88.82	+12.79
C_{21w}	0.8946		12.01	....	(86.48)	....	....	85.48	− 1.00
C_{22}	0.8981	8.34	10.82	....	72.65	....	....	89.88	+17.23
C_{22w}	0.8943	....	12.10	....	(86.48)	....	....	85.82	− 0.66

essential oils. All components were weighed by difference.

c. Washed and dried oils from mixtures. 50 ml. of the mixture was washed twice in a 500 ml. separator, using each time 250 ml. of water. About half a day was allowed for settling after each washing. The washed oil was dried by shaking with anhydrous sodium sulphate and leaving overnight. The filtered oil was tested for water with carbon disulfide.

Descriptions of the 15 samples used in the experiments were tabulated in Table I.

Procedures: Esters and total alcohol were determined by the same procedures as those described in the previous paper.[1] [2]

RESULTS OBTAINED

All experimental data, calculated in the usual way, were recorded in Table II. Under (3) was recorded the volume of oil obtained from 10 ml. of adulterated oil by washing with two 50 ml. portions of water. The procedure was similar to the preliminary test described in a previous paper.[2] No salt was added to facilitate settling.

The volume of acetylated oil recorded under (4) represents volumes observed in the measuring separator before the commencement of the washing operation.

The figures recorded under (7) and (8) were directly calculated from the results of analysis, without correcting for water soluble adulterant.

In Table III were recorded the alcohol and ester contents calculated from the reduction in volume of the mixtures on washing and the analysis of the washed and dried oil prepared from the mixtures.

By comparing the values under (E) and the amount of essential oil known to be present (as from the preparation of the mixtures), a general knowledge of the amount of oil lost through washing can be gained.

The average loss was about 0.6 per cent with peppermint oil or 1 per cent with citronella oil, calculated on the weight of the mixtures before washing. These formed the empirical corrections used in Table IV.

The amount of oil lost is the same whether the sample contained 10 per cent or 15 per cent of adulterant. The same correction should, therefore, be added to (E) in the calculations.

In Table IV are recorded the corrected values for oil in mixtures (Ec), and the ester and alcohol contents of the six mixtures computed from (Ec).

TABLE III—COMPOSITION OF MIXTURES, CALCULATED FROM REDUCTION OF VOLUME IN WASHING AND ANALYSIS OF WASHED AND DRIED OIL

Mixture No.	Specific Gravity, 20° C: (A) Not Washed	(B) Washed and Dried	Oil in Mixture: By Volume (C) Calculated from (1) %	(D) From 10 ml. Mixt. by Washing Ml.	Dev. on ml. oil in 10 ml. Mixture Basis	By Weight (E) Calculated from Experimental Data (D) %	Dev. from (1)	Composition Calculated from Analysis of Washed and Dried Oil: Reduction of Vol. Not Considered (F) From (7) Esters %	(G) From (8) Total Menthol %	Reduction of Volume Considered (H) Esters %	Dev. from (5)	(I) Total Menthol %	Dev. from (6)
P_{21}	0.8915	0.9024	86.82	8.86	−0.02	89.68	−0.18	2.23	84.44	2.00	+0.04	75.73	+0.03
P_{22}	0.8906	0.9022	86.85	8.62	−0.06	87.32	−0.63	2.20	84.21	1.92	0.00	73.53	−0.56
P_{31}	0.8869	0.9028	83.29	8.25	−0.08	83.98	−0.84	3.20	63.03	2.69	−0.02	52.93	−0.69
P_{32}	0.9039	0.9034	84.67	8.41	−0.08	84.05	−0.75	3.18	63.29	2.67	−0.03	53.20	−0.41
									"Total Geraniol"			"Total Geraniol"	
C_{21}	0.8856	0.8946	86.99	8.61	−0.09	86.97	−0.95	....	85.48	....	....	74.34	−1.69
C_{22}	0.8981	0.8943	84.29	8.34	−0.09	83.05	−0.96	....	85.82	....	....	71.27	−1.38

TABLE IV—RESULTS CORRECTED FOR LOSS OF ESSENTIAL OIL IN WASHING

Mixture No.	Oil in Mixture, % (w/w)				Esters, %				Total Menthol, %			
	Known (1)	Not corrected (E)	Corrected (Ec)	Dev. from (1)	Known or Assumed (5)	Not corrected (F) From (7)	Corrected (Hc) =(Ec) x (F)	Dev. from (5)	Known or Assumed (6)	Not corrected (G) From (8)	Corrected (Ic) =(Ec) x (G)	Dev. from (6)
P_{11}	89.86	89.68	90.28	+0.42	1.96	2.23	2.01	+0.05	75.70	84.44	76.23	+0.53
P_{12}	87.95	87.32	87.92	−0.03	1.92	2.20	1.93	+0.01	74.09	84.21	74.04	−0.05
P_{21}	84.82	83.98	84.58	−0.24	2.71	3.20	2.71	0.00	53.62	63.03	53.31	−0.31
P_{22}	84.80	84.06	84.65	−0.15	2.70	3.18	2.69	−0.01	53.61	63.29	53.57	−0.04
									Total Geraniol, %			
C_{21}	87.92	86.97	87.97	+0.05					76.03	85.48	75.20	−0.83
C_{22}	84.01	83.05	84.05	+0.04					72.65	85.82	72.13	−0.52

The experiment covered only six mixtures, containing 10 to 15 per cent of adulterants. The data serve to show the possibility of the method, but the number of washings and the correction of oil lost might require modification when samples contain totally different proportions of adulterant.

DISCUSSION

The loss through washing was greater with pure essential oils than oils in mixtures. The separation of the oil and water layers appeared to be facilitated by the presence of a small quantity of ethanol or similar adulterants. (Data not shown in tables.)

The mixtures were washed with water, for it removed the adulterants more quantitatively than either brine or calcium chloride solution. Furthermore, according to Salamon[5], chloride is objectionable because it impairs the accuracy of the acetylation method.

The oils obtained from the washing of the 50 ml. portions of mixtures have been transferred into a 100 ml. buret and measured. The loss was proportionately greater than the 10 ml. portions washed and measured in a 100 ml. measuring separator.

According to Schimmel & Co.[6] the acetic anhydride used for the acetylation of citronella oil should contain over 85 per cent of $(CH^3CO)^2O$ and the sodium sulfate should be completely dehydrated, so as to assure uniform and precise results. The author also found that acetic anhydride of good reagent quality is essential for reproduceable results, even with peppermint oil.

Heikel[3] pointed out that the menthol content of peppermint oil is reduced through excessive washing with water. No serious change in composition, however, has occurred in peppermint oil under the author's working conditions. The "total geraniol" contents of the washed and dried citronella oil, on the other hand, appear to have been reduced by 1 per cent. (See Table II.) If a correction for this change in composition is to be attempted, it should be based on a large number of trials. According to Zimmermann[7], who has analyzed 3,000 samples of citronella oil, results 3 per cent apart are not uncommon in the determination of "total geraniol" by acetylation, and according to Zimmermann[7] and Koolhaas[4], results within 1 per cent can be considered satisfactory.

Fig. 1. Measuring Separator

The alcohol content of essential oils cannot be accurately determined by the standard acetylation method if a water soluble adulterant like ethanol is present. It is possible, however, to remove the adulterant by washing with water previous to acetylation. From the shrinkage in volume on washing and the analysis of the washed and dried oil by acetylation, the alcohol content of the adulterated sample can be computed with reasonable accuracy.

The author wishes to acknowledge the valuable helps given by H. W. Loh and C. W. Fan in performing part of the experimental work.

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CORRECTION

A few misprints occurred in the article "determining Alcohols in Essential Oils" as appeared on pages 35-36 of the August, 1940 issue of this journal.

The name of the author should be John E. S. Han.

The sentence under the subheading "4. TOTAL ALCOHOL" should read ". . . titrated exactly as under No. 2."

The data for the columns "Specific Gravity 20° C" and "Index of Refraction 20° C" was left out from Table I. It follows:

	Specific Gravity 20° C	Index of Refraction 20° C
C_0	0.8969	1.4729
C_1	0.8810	1.4534
C_2	0.9005	1.4611
P_0	0.9002	1.4627
P_1	0.9014	1.4516
P_2	0.9005	1.4570
S_0	0.9774	1.5069
S_1	0.9722	1.4952
S_2	0.9745	1.5010

EDITORIALS

OIL SANDALWOOD U. S. P.

BY establishing tests for identity, quality and purity and assays for strength of numerous medicinal substances, the *United States Pharmacopoeia* has rendered untold service to the medical and pharmaceutical professions. As a result of its work official medical substances have been maintained at a high degree of uniformity and efficacy.

But over the years, almost unnoticed, various other substances not employed therapeutically in the medical or pharmaceutical professions have found a place in this authoritative work. Thus one finds listed, for instance, such oils as anise, sweet orange, cinnamon, cassia, coriander, fennel, lavender, lemon, nutmeg, pine needles, rose and rosemary.

There may be sound reasons for including such oils in the *United States Pharmacopoeia* but as they are not used to any extent in medical or pharmaceutical practice the question may properly be asked why such oils should be included and sandalwood oil, which is used in medical practice, should be dropped.

Sandalwood oil is a standard item with both the Army and Navy and is used in the treatment of genito-urinary conditions. The oil is not a specific but is used generally by practicing physicians in the treatment of such conditions.

The importance attached to sandalwood oil by the United States Army may be judged from the fact that Col. Shook of the Medical Corps has taken steps to insure a sufficient supply of it. Surely, in these days, no one will question the wisdom of insisting on the high standards provided by the *United States Pharmacopoeia* for sandalwood oil to be used in the treatment of men of the army and navy.

To the man in the street, listing in the *United States Pharmacopoeia* is the hallmark of a definitely superior product; no other compendium in his eyes being equal to it. Assuredly such a valuable oil as sandalwood should retain this description under all circumstances. After all the monograph occupies such small space in this valuable work that in the absence of especially cogent reasons for omitting it, the Committee of Revision might well wish to reconsider its tentative decision to withdraw it.

THE FIND OF AMBERGRIS

WHEN the good ship *Siboney* of the American Export Line arrived in the port of New York from Lisbon and Bermuda on the morning of May 26, she had in her hold 14 barrels of a substance the captain had picked up at sea, which he believed to be ambergris. Under salvage law the proceeds of the sale of such a find are distributed among the owners and members of the crew, numbering in this case 173, in proportion to their pay. As the find was estimated to be worth around $750,000 based on current market quotations, quite naturally the members of the crew were in high spirits as to the prospects ahead of them.

The captain had visions of retiring to a spacious country chicken farm for the balance of his days. A petty officer spent much of his spare time on the home trip planning a cozy home, which if good fortune ever came to him he had long promised himself to provide for his mother-in-law, all for herself. Another one became interested in the possibilities of a prolonged visit to the Island of Bali which is reputed to be a paradise for artists, sculptors and other lovers of high art. He placed himself in the latter category.

But untrue to the traditions of the best movie script writers the chicken farm did not materialize nor is the petty officer likely to live happily ever after; for it fell to the unhappy lot of chemists Maurice Meunier and John Kiehl of the Colgate-Palmolive-Peet Co., and Albert Dillinger of van Ameringen-Haebler, Inc., who examined the substance, to inform the captain that it did not meet any of the tests for ambergris.

To mariners, ambergris is the gold of the sea. Evidently, they are constantly on the lookout for it. even in war time, judging from the numerous occasions that essential oil houses are offered what purports to be ambergris by itinerant sailors. In the past twenty years, not a single instance is recalled where the substance found in the Atlantic ocean proved to be ambergris. Usually it turns out to be a heavy lubricant discarded by the ship's engine room, miscellaneous galley grease or other waste cast overboard or sometimes it is a valueless substance disgorged by a mammal or fish of the sea.

THE AMERICAN PERFUMER

Flavors

INDUSTRY SECTION

A section designed to chronicle the activities and to epitomize the spirit of energy, the new viewpoint and the desire of the flavor products industry to be in the forefront as ways improve and methods change

FULLER UTILITY OF CINNAMON FLAVOR URGED

Factors for users of spices for flavoring and for distillers of essential oils to consider when employing cinnamon

by H. STANLEY REDGROVE *B.Sc., F.I.C.*

THE cinnamon flavor is one of considerable importance. In Great Britain, it finds its chief employment in connection with the flavoring of sweet articles of diet, such as cakes, puddings, etc. But its utility is not limited to these. Cinnamon is a normal constituent of curry powder, and also is sometimes used for flavoring tomato ketchup. Recently, in his talks "on the Kitchen Front," broadcast by the B.B.C., Ambrose Heath has advocated the use of a pinch of cinnamon for flavoring cabbage—a device which the writer has found surprisingly good. In the United States, soft drinks having spicy flavors, in the composition of which cinnamon sometimes enters, command good sales. It seems possible, therefore, than in spite of its antiquity, the full utility of the cinnamon flavor remains to be explored.

WHAT IS MEANT BY CINNAMON FLAVOR

At this stage, however, it seems desirable to define what is meant by cinnamon and the cinnamon flavor because, curiously enough, there is not universal agreement in usage of the term "cinnamon." The flavor in its finest form, that of Ceylon cinnamon, the dried inner bark of coppiced trees of *Cinnamomum zeylanicum* Nees, grown in Ceylon, probably was unknown in the western world until the latter part of the thirteenth century. The "cinna-

Cinnamon is a popular flavoring for cakes, puddings, drinks

Photo—General Foods Corp.

mon" referred to in the Old Testament and by ancient writers, such as Theophrastus and Pliny, almost certainly was not this, but more probably a spice derived from a related Chinese tree, *Cinnamomum Cassia* Blume; while the "cassia," so carefully differentiated in the old writings from "cinnamon," probably was another Chinese variety.

CASSIA HAS DIFFERENT FLAVOR

In Great Britain, Chinese and other Asiatic spices, allied to cinnamon, are commonly marketed as "cassia." In the United States, so far as I am aware, the distinction is not so clear cut, and there does appear to be some confusion in nomenclature. In the latest *Definitions and Standards for Food Products* (Fifth Revision, 1936), issued by the Department of Agriculture, the present writer has seen the term "cinnamon" applied indiscriminately to the dried bark of cultivated varieties of either *C. zeylanicum* or *C. Cassia*, though this may since have been emended, while the U.S.P. XI defines "cinnamon" as "the dried bark of *Cinnamomum Loureirii* Nees. Authentic bark from this last species is rarely found on the London market; but, prior to the war, varieties of cassia, differing from the normal Chinese products, sometimes were imported, among which bark of *C. Loureirii* may have been included. Usually speaking precise indications as to source were lacking. Readers interested in what may be termed the more unusual varieties of cassia or so-called cinnamon will find fairly full details in the writer's treatise on *Spices and Condiments*.

Users of spices for flavoring purposes and distillers of essential oils need to distinguish carefully between cinnamon of Singhalese origin and Chinese cassia, because the flavors of the two products, although closely allied, are emphatically different, that of the Singhalese product being by far the finer. The U.S.P. XI allots the name "oil of cinnamon" to cassia oil. From the therapeutic point of view there is little to choose between the two oils, but the flavoring essence manufacturer, like the perfumer, must draw a sharp line of distinction between them.

CEYLON CINNAMON SPICE SUPERIOR

It is remarkable that, although *C. zeylanicum* can be grown in suitable tropical climates outside Ceylon, nowhere has a spice equal to Ceylon cinnamon been produced. The Seychelles product, although of interest, is definitely inferior in quality. Similar commendatory remarks, however, do not apply to cinnamon oil distilled in Ceylon, owing to widespread adulteration. Home-distilled oils from the Ceylon spice are nearly always to be preferred.

Ceylon cinnamon is normally exported in the form of thin compound quills, graded according to size, color and quality, in nine grades, "00000" being the finest and No. 4 the least fine. Fine grades average from about 20 to 30 quills to the pound, the inferior grades 8 to 12. Usually chips are used for distilling. Chinese cassia, on the other hand, comes on the market in the form of either simple quills or transversely curved pieces. The appearance of the spice is much coarser than is that of Ceylon cinnamon. It is darker and redder in color, and the exterior surface is commonly marked with patches of grey-colored cork, a defect never observed in the case of Ceylon cinnamon. There is little danger, therefor, of one spice being mistaken for the other.

Both spices, of course, owe their flavors and aromas to the essential oils they contain, about ½ to 1 per cent in the case of cinnamon, and about 1.5 per cent in the case of cassia. In each case the characteristic "cinnamon" note is given by cinnamic aldehyde, $C_6H_5.CH:CH.CHO$.

CINNAMIC ALDEHYDE

This aldehyde, synthetically prepared by the condensation of acetaldehyde with benzaldehyde or otherwise, may be used as the basis for building up artificial cinnamon flavors, but it needs careful blending.

In cinnamon oil, the flavor of the aldehyde is very agreeably modified by the presence of an appreciable amount of eugenol, whose flavor is clove-like. A good cinnamon oil will contain not less than 50 per cent by weight of cinnamic aldehyde. It may contain so much as 75 per cent, but any figure above 65 per cent renders the oil liable to suspicion, as possibly adulterated with cassia oil which never (if authentic and of good quality) contains less than 80 per cent, and frequently contains more than 90 per cent, of this constituent. On the other hand, the eugenol content of genuine cinnamon oils may vary from 4 to 10 per cent, but too high a figure suggests adulteration with cinnamon leaf oil which is very rich in eugenol.

REASON FOR FLAVOR

There can be little doubt that the fine flavor of cinnamon is due in part to the nice balance between the cinnamic aldehyde and eugenol in its essential oil. This balance is easy enough to obtain in the fabrication of artificial cinnamon flavors; but the story does not end there. Cinnamon oil contains phellandrene and traces of many other constituents. According to an investigation by Walbaum and Huethig, carried out in 1902, these include pinene, cymene, caryophyllene, linalol, aldehyde C9, benzaldehyde, cuminic aldehyde, methyl amylketone, and probably furfural, hydrocinnamic aldehyde, and linalyl *iso*-butyrate.

Apart from the presence in both of large amounts of cinnamic aldehyde, cinnamon and cassia oils differ considerably in composition. Until fairly recently, the only known constituents of cassia oil, in addition to cinnamic aldehyde, were cinnamic acid (formed from the aldehyde by oxidation), cinnamyl cinnamate, probably phenylpropyl acetate, and, deposited by some old samples only, methyl-*ortho*-coumaric acid. Researches carried out in the U.S.A. by Dodge and Sherndal in 1915, and by Dodge in 1918 (*Journ. Ind. Eng. Chem.*, Vol. 7, p. 1055, and Vol. 10, p. 1005) revealed the presence in the oil of small but appreciable amounts of salicylic acid and coumarin, as well as traces of

benzaldehyde, methyl-salicylic aldehyde, benzoic and salicylic acids (probably formed from the corresponding aldehydes by oxidation) and an unidentified liquid of fruity odor.

Although some of these may be regarded as useful flavor constituents, taken as a whole they do not improve the flavor of the oil, and, in addition, cassia oil contains unidentified constituents of unpleasant aroma. Hence, while cinnamon oil has a finer flavor than synthetic cinnamic aldehyde, synthetic cinnamic aldehyde has a finer flavor than cassia oil.

Because both oils contain large proportions of cinnamic aldehyde, it sometimes has been stated that they are, for all practical purposes, alike. The results of the chemical analyses show how nonsensical such statements are. They never could be made by anyone who had really savored the two oils, unless defective in flavor-appreciation.

A highly undesirable constituent of both cinnamon and cassia oils, sometimes encountered, is lead cinnamate, derived by interaction between cinnamic acid (formed by oxidation of cinnamic aldehyde) and the lead of the containers in which the oils are frequently packed for export. Oils containing lead are unfit for use as flavoring materials, and it is imperative to purify them by rectification.

ESSENTIAL OIL FROM CINNAMON

The essential oil obtained from cinnamon represents its flavor very accurately; and, for many purposes, the oil or a flavoring essence prepared from the oil is preferable to the spice itself or to a flavoring essence prepared from the spice by maceration. This is due to the fact that cinnamon itself contains an appreciable amount of tannin. This gives it a somewhat astringent taste which in all combinations is not desirable.

The *U. S. Definitions and Standards for Food Products* to which reference already has been made require Ceylon cinnamon extract and cinnamon, cassia or cinnamon cassia extract for flavoring to be prepared from Ceylon cinnamon oil and cassia oil respectively, and to contain not less than 2 per cent by volume of the oil in question. Kessler, in his book *Practical Flavoring Extract Maker* (2nd. edition, New York, 1927), recommends dissolving 2.56 ounces of either oil in 90 ounces of alcohol, gradually adding 38 ounces of water, with shaking, and finally filtering if necessary.

Alcohol Tax Hearing

IN conjunction with the hearing on the revenue revision of 1941, the Ways and Means Committee held a hearing in Washington, D. C., May 5, on the proposal to differentiate in the taxation of ethyl alcohol for beverage and nonbeverage purposes.

Congressman Kefauver submitted a comparative "Chart of Taxes on Domestic Distilled Spirits" which set forth a graphic representation of taxation of distilled spirits and nonbeverage alcohol by Congress from 1862 to 1940; likewise an invoice bearing date of April 24, 1941 for a carload of alcohol consisting of 3888 gallons, showing the actual cost of ethyl alcohol in the sum of $1,185.84 and the existing revenue tax in the sum of $22,161.60—in other words, the revenue tax as 18.68 times the cost of the ethyl alcohol.

PROHIBITION ERA

Reference was made to the prohibition era, wherein Congress differentiated between revenue taxes levied on ethyl alcohol consumed in beverages and that consumed in common household necessities; that during that period the rate of revenue tax on beverage alcohol was $6.40 per proof gallon, while on nonbeverage alcohol used in foods, drugs and perfumes, etc., the rate was $1.10; that, however, with the repeal of Title I of the National Prohibition Act (relating to "distilled spirits" for beverage purposes) ethyl alcohol, regardless of its

John Beach, head of the F.E.M.A., presides at the annual convention, June 16 to 18, Hotel Traymore, Atlantic City, N. J.

use, was thrown into one tax classification, and subsequently the tax increased to the present revenue tax of $3 per proof gallon.

It was pointed out that no other nation on earth taxes ethyl alcohol for nonbeverage use at the same rate as for beverage purposes. Canada at the present time taxes distilled spirits imported or entered for beverage consumption at $7 per proof gallon and brandy at $6; non-potable when used in pharmaceutical preparations, perfumes, and by licensed druggists at the rate of $1.50 per proof gallon; vinegar 60 cents; chemical compositions approved by the governor in council 15 cents per proof gallon.

For the nine months' period ending March 31, 1940, according to official treasury figures, there were consumed by industry 4,483,410 gallons of nonbeverage alcohol. For the corresponding nine months' period ending March 31, 1941, nonbeverage ethyl alcohol consumption dropped to 3,305,587 gallons, a loss of 1,177,823 gallons, or an alarming decrease of 25.82 per cent. This decrease, it was represented, is directly attributable to the increase in revenue tax on nonbeverage ethyl alcohol from $2.25 to $3 per proof gallon, and represents a tremendous economic loss, for raw materials, such as corn, for example, were not utilized in the production of ethyl alcohol heretofore used by the nonbeverage industries. It is evident that substitute materials, upon which no revenue tax is collected, were used in lieu of pure ethyl alcohol whenever possible.

FINANCIAL LOSS TO TREASURY

The outcome was that there resulted to the treasury of the United States a net financial loss in revenue. Ethyl alcohol intended for nonbeverage purposes, taxed at the rate of $2.25 per proof gallon for the nine months' period ending March of 1940, is represented in the payment to the treasury of the sum of $10,087,672.50. However, during the same period in 1941 there was paid to the treasury, due to the increase in rate of revenue tax to $3 per proof gallon on ethyl alcohol intended for nonbeverage purposes, the sum of only $9,916,761 which represents a net loss in revenue of the sum of $170,911.50.

Dr. Charles E. Caspari of St. Louis, Mo., an authority on the use of industrial ethyl alcohol, was the next witness. Dr. Caspari supported the position of Congressman Kefauver, and explained in detail the attributes of ethyl alcohol for beverage and nonbeverage purposes and its use in the food, drug, and cosmetic industries. Ethyl alcohol, in Dr. Caspari's opinion, is one of the most important raw materials used in the production—extracting, compounding, mixing and preservation—of foods, drugs and cosmetics.

PRESERVATIVE PROPERTIES NEEDED

Reference was made to the problems of all food, drug and cosmetic manufacturers, and the necessity to control development of bacteria, yeast and fungi in their finished products. That ethyl alcohol, having preservative qualities, estops growth of all three forms of contamination; is relatively tasteless and odorless, and without effect on the color or viscosity of the solutions when used in concentrations in which a preservative is necessary; in addition, it is without toxic or other marked physiological effect on humans in the amounts needed or used in food and medicinal preparations.

John H. Beach, president of the Flavoring Extract Manufacturers' Assn., spoke on behalf of the flavoring products industry, explaining the necessity for the use of ethyl alcohol in the manufacture of flavoring extracts because of its excellent solvent and preservative properties.

The Food and Drug Administration, it was stated, permits only two solvents—ethyl alcohol and glycerine—in extracts and/or flavors. Glycerine in the manufacture of extracts and/or flavors could no more dissolve the extractive matter of fruit, such as raspberries, strawberries and cherries, than could molasses. As an example, the use of glycerine would not only be impracticable from a standpoint of extraction, but the extractive matter produced with glycerine as a solvent and used in the preparation of gelatine desserts, would produce a finished dessert powder susceptible to moisture absorption because glycerine is hygroscopic, and the dessert powder would, therefore, cake and be impracticable for use to the housewife. Reference was likewise made to loss in revenue to the treasury, due to the increase in revenue tax on ethyl alcohol on July 1, 1940. Mr. Beach's interpretation of the figures so submitted was that they are indicative that the industry is drying up; that the present revenue tax is not only a revenue matter but likewise an economic problem.

The committee was addressed also by Rowland Jones, Jr., representing the National Assn. of Retail Druggists; Dr. E. F. Kelly, representing the American Pharmaceutical Assn.; George H. Burnett, chairman of the Alcohol Tax Reduction Committee of the Flavoring Extract Manufacturers' Assn., representing also the Assn. of Grocery Manufacturers of America; J. M. George of the Inter-State Manufacturers Assn.

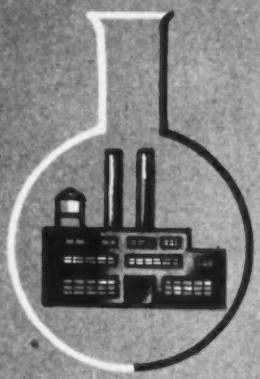
Vanilla Bean Developments

ACCORDING to a report, a shipment of vanilla beans was made on a Greek steamer to Cape Town to be trans-shipped to the United States. It was a consignment of about 500 kilos but unfortunately the cargo was seized. New crop whole Mexican beans are arriving here quite freely but because of the shortage of other grades these beans are going directly into consumption. Flowering of the new crop in Mexico is over. The flowers have been very disappointing, however, and it is doubtful if the coming crop will reach half of the present output of 500,000 pounds. So far little difficulty has been encountered in obtaining Tahiti beans. Shipments have been coming in regularly although trade factors hesitate in making any predictions concerning the future.

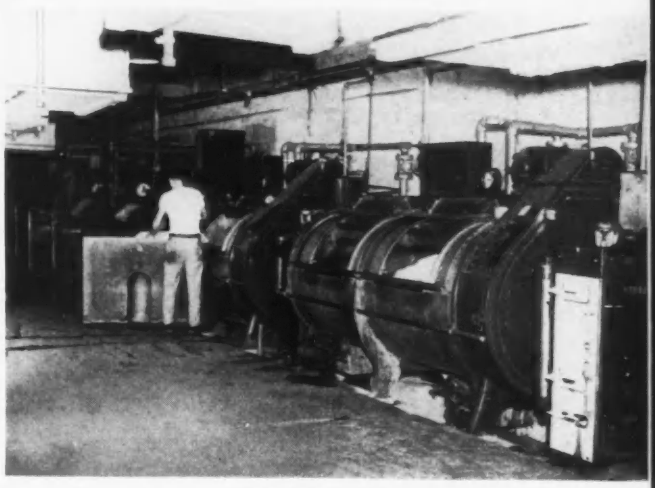
THE AMERICAN PERFUMER

Soap

INDUSTRY SECTION



A section devoted to the manufacture and sale of toilet and laundry soap and soap products covering new raw materials in soap making and new uses for old raw materials, as well as new processes and developments



Modern laundry washers with automatic control in foreground

ALKALINE AGENTS IN THE CLOTHES WASHING PROCESS

Alkalies used by laundries and their properties . . . Buffer action . . . Water softening . . . Effects of alkalies

WHILE soap is the primary detergent material used in the washing process, it needs an alkaline agent to supplement it. Alkalies are used to counteract or neutralize the acids which are usually found in the soil. Further, because soap is unable to function properly in acid solutions, the alkalies are added to overcome the acidity.

ALKALIES AND THEIR PROPERTIES

Alkalies are made up of various sodium compounds. The total alkalinity of these various alkalies is commonly expressed in terms of their Na_2O content which also gives the relative efficiency of the alkalies for completely neutralizing acids. This complete neutralization is measured with such indicators as methyl red or methyl orange.

In order to be effective in the washing process, an alkali must maintain a pH of at least 9.5. For this reason, part of the total alkalinity of most of the alkalies is not active in the washing process. This allows a breakdown of alkalies into active and inactive fractions. The alkalies used in the laundry industry and their individual properties are:

Sodium Hydroxide (Caustic Soda)

This is the strongest of the sodium base alkalies, containing 76 per cent Na_2O, all of which is in the

active form. Caustic soda has no buffer value and will give considerable variations in pH with variations in the type of load or the total amount of alkali used per 100 pounds of work. It can only be used satisfactorily under carefully controlled conditions.

Sodium Orthosilicate

Consists of approximately 53 per cent Na_2O, 42 to 46 per cent of which is active, and 20 to 30 per cent water. Its chemical composition would indicate a relatively small buffer value with a buffer range in the neighborhood of 11.6. When used alone, the amount must be carefully controlled.

Sodium Sesquisilicate

With a formula $3Na_2O.2SiO_2.11H_2O$, this material contains 36.89 per cent NaO_2, 23.83 per cent SiO_2 and 39.27 per cent water. It is a stronger alkali than sodium metasilicate, with a pH range about 0.3 unit higher. Its buffer range in the washer is between 11.1 and 11.6.

Sodium Metasilicate

Contains 29.2 per cent Na_2O and 42 per cent water and has a formula $Na_2SiO_3.5H_2O$. Calculations of washwheel loading figures indicate that between 65 per cent and 75 per cent of the total alkalinity is in the active form so that this material will furnish between 19 and 22 per cent active alkali. The amount of alkali required for an average weighted load can be determined and the buffer value of this alkali will be great enough so that ordinary variations of soil will not produce objectionable variations in the pH of washing solutions.

Trisodium Phosphate

With a formula $Na_3PO_4.12H_2O$, this alkali contains 24.5 per cent Na_2O, of which one-third is in the active form, and 57 per cent water. The low percentage of active alkali and the large amount of water in this compound combine to make it expensive when used alone in a washing formula. Because of this and other properties, it is often used in alkali mixtures.

Soda Ash

Known, too, as sodium carbonate, soda ash contains from 56 to 58 per cent Na_2O and not more than 5 per cent water. One-half of its Na_2O content is available in the active form. Soda ash is an alkali of moderate strength and must be added in great amounts to give satisfactory pH values. For this reason, soda ash formulas often tend to show concentrations of total alkalinity which are high enough to cause trouble in rinsing. It is essential that the quantity of soda ash used in a formula shall be regulated.

Modified Soda

Modified soda is a mixture of soda ash and sodium bicarbonate. The soda ash content varies from 40 to 48 per cent, the bicarbonate content from 37 to 50 per cent, the Na_2O content from 41 to 44 per cent and the water content from 5 to 15 per cent. Modified sodas have high buffer values and show low pH values. The amount used must be controlled carefully to keep the titratable alkalinity of the suds bath within proper limits.

BUFFER VALUE

A characteristic of alkalies which is closely associated with their activity values is their buffer value. Buffer value is the resistance of alkaline solution to a change in pH when the solution is neutralized partially or when it is diluted or concentrated. In general, it will be found that the buffer value of the alkali increases as its activity decreases. For this reason, caustic soda has little buffer value and soda ash and modified soda have considerable buffer value.

When poor buffer value alkalies are used in the washing formula, the amount of alkali added to the wheel must be carefully controlled. Alkalies with high buffer values can be varied within considerable limits without producing any marked change in the pH. Thus, formulas in which caustic soda or sodium orthosilicate are used require careful standardization, based on chemical tests on a sufficient number of average loads.

When alkalies with high buffer values are used, the pH does not rise appreciably with an increase in the concentration. But the total alkali concentration in the washwheel will rise in proportion to the amount of alkali added. Since the total alkali concentration in the wheel plays an important part in rinsing and to a certain extent in soap efficiency, it is almost as desirable to control carefully buffered alkalies as those which are buffered poorly. The only advantage of a well-buffered alkali is that no sudden change in pH can occur when it is not used properly.

The alkalies outlined each have characteristic buffer ranges when used in the usual manner in laundry suds baths and pH values beyond the characteristic range can only be obtained by using concentrations of alkali above those desirable in good laundry practice. The buffer ranges, as determined in suds baths, always are lower than when determined in water solutions of the alkalies. This is because the acidic material in a load of clothes reacts with part of the alkali and thus increases the buffer action of the solution.

The accompanying table gives a condensed statement of the characteristics of the various alkalies in

ALKALINITY TABLE

	Per Cent Alkali as Na_2O	Per Cent Active Alkali as Na_2O	Characteristic Buffer Range in Suds Bath	Replacement Ratio Ounces of Alkali per Ounce of Caustic Soda
Caustic Soda	76	76	Above pH 12.0	
Orthosilicate	53	42—46	Above pH 12.0	1.8
Sodium Sesquisilicate	36.9	28—31	pH 11.1—11.6	2.6
Sodium Metasilicate	29.2	19—22	pH 10.8—11.4	3.7
Trisodium Phosphate	24.5	8.2	pH 10.3—10.6	9.3
Soda Ash	56	28	pH 10.0—10.4	2.7
Modified Soda	41—44	11.0—13.5	pH 9.0—10.0	6.0

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Laundry washroom with washers at left and extractors, right

order of their activity. It also includes approximate replacement value for the various alkalies in terms of caustic soda. When such a replacement is made, the pH of the suds baths should fall within the characteristic buffer of the alkali substituted.

The buffer ranges of alkali mixtures depend on the proportions and types of alkalies used. It is a simple matter to determine the limits of any mixture by means of pH and titration measurements.

WATER SOFTENING

While it is impossible to answer the water softening problem with alkalies, they nevertheless produce effects which should be considered in hard water operations. The following table lists the alkalies in order of their effectiveness.

Alkalies

.1% Concentration in water of 8.6 grains per gallon hardness	Drops of 3.4% soap solution required on 25 c.c.
Trisodium Phosphate	3
Sodium Metasilicate	5
Sodium Sesquisilicate	7
Sodium Orthosilicate	8
Caustic Soda	11
Soda Ash	14
Sodium Sesquicarbonate	19

Where water is not softened previous to its use in the washing formula, it is desirable to select alkalies or alkali mixtures which have definite water softening properties. To soften water, an alkali should form compounds with the calcium and magnesium present which are at least as insoluble as the lime soaps of these metals.

The calcium and magnesium salts formed by the addition of caustic soda, soda ash or modified soda to hard waters are considerably more soluble than the lime soaps. This is borne out by the fact that lime-soda softeners will not give water of a hardness below two or three grains. These alkalies, therefore, produce little water softening and should not be used alone except with softened water.

The silicates and phosphates form compounds with calcium and magnesium which are of the same order of solubility as the lime soaps. The silicates and phosphates will not completely soften water, but experience has shown that they are the best alkalies available for this purpose and also will tend to improve the color of work washed in hard water.

Claims have been made that certain alkalies aid in the washing process due to their colloidal nature or due to their ability to produce colloidal suspensions of other materials present in the solution. It is almost certain that caustic soda ash and modified soda have little or no value in producing colloidal solutions. There is, however, some evidence to indicate that the silicates and phosphates do tend to form colloidal suspensions of carbon black and similar materials under certain conditions.

Soap is a powerful emulsifying agent and it is questionable whether the colloidal properties of the silicates or phosphates have much influence on the laundry washing process. This is because their colloidal character is not sufficiently pronounced so that they would have any appreciable effect on dirt suspension when present together with soap in a suds bath. Diatomaceous earth or similar materials containing considerable colloidal materials also have been used but do not approach soap detergency.

Quantity of 1 per cent solution of various alkalies required to neutralize completely a fixed test quantity of the same strength acid are:

Caustic Soda	105 C.C.
Sodium Orthosilicate	215 C.C.
Sodium Sesquisilicate	210 C.C.
Sodium Metasilicate	270 C.C.
Trisodium Phosphate	320 C.C.
Soda Ash	135 C.C.
Sodium Sesquicarbonate	230 C.C.

Effects of acids on alkalies of similar strength

Since, in the process of neutralization of the soil acidity, salts are formed which tend to reduce the alkalinity of sudsing operations, it is interesting to note the effect of these salts on pH values. They are shown in the table below:

Alkalies 25 C.C.	pH Values Drops of N/1 HCl added					
.1% Concentration	0	1	2	3	4	5
Caustic Soda	12.2	12.0	12.0	11.8	11.8	11.6
Orthosilicate	11.8	11.4	11.2	11.2	10.6	10.6
Sesquisilicate	11.4	11.0	11.0	11.0	11.0	10.0
Metasilicate	11.2	11.0	10.8	10.8	10.6	10.0
T. S. P.	11.2	11.0	10.6	10.0	—	—
Soda Ash	10.8	10.2	10.0	10.0	—	—
Sesquicarbonate	10.0	10.0	10.0	—	—	—

Ability to produce necessary suds

The ability of alkalies to produce suds necessary for good washing has an effect on soap economy. The table below shows the approximate volume of lather produced by the various solutions:

25 C.C. solutions containing .1% soap and .1% alkali	Volume of suds produced
Caustic Soda	50
Sodium Orthosilicate	45
Sodium Sesquisilicate	45
Sodium Metasilicate	40
Trisodium Phosphate	40
Soda Ash	30
Sodium Sesquicarbonate	25

Effect of alkalies on the penetrating power of water

The abilities of alkali solutions to wet-out strips of canton flannel were tested and the following order of efficiency established.

1. Sodium metasilicate.
2. Sodium sesquisilicate.
3. Trisodium phosphate.
4. Caustic soda.
5. Trisodium phosphate.
6. Soda Ash.
7. Sodium sesquicarbonate.

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"When our product goes into this bottle, it's as good as we know how to make it. To *keep* it that way is the problem.

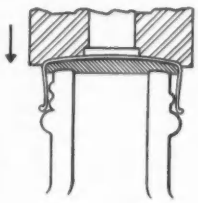
"And, believe me, Ed, the Rolled-On method by which these Alseco Seals are applied, takes care of that. We figure it's 'packaging insurance' because we're *sure* that when the consumer opens our package, the contents will be just as we made 'em.

"You see, with the Rolled-On method, each seal is tailor-made. The threads are Rolled-On after the liner is seated. They fit the *glass* threads exactly.

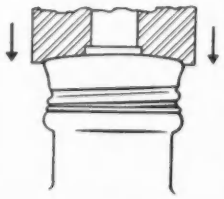
"No misfits. No leakers. No breathers. These Alseco Seals really seal! Yet they're easy to unscrew because they're never wedged or cocked.

"Let me show you this diagram . . ."

HOW THE ROLLED-ON METHOD WORKS



Plain-skirted Alseco Seal is uniformly seated. Under stationary top pressure, container lip is imbedded in liner evenly all around.



Then, to hold that seal securely, threads are Rolled-On, using the container's own threads as the pattern. Possibility of leakage or evaporation is reduced to minimum. Alseco Seal stays tight, but opens and recloses easily because it is tailor-made.

TAILOR-MADE

ALSECO SEALS

ALUMINUM SEAL CO., 1355 THIRD AVE., NEW KENSINGTON, PA.
At your service: 27 years of experience building quality seals and sealing machines.

DEFENSE COMES FIRST

The urgent requirements of National Defense have limited the amount of Aluminum available to us for seals. Temporarily, some types of Alseco Seals are being supplied in metals other than Aluminum.

However, Aluminum production capacity is being rapidly expanded. When the emergency is past, there will be more Aluminum available for seals than ever before.

Trade Mark Reg. ALSECO SEALS U. S. Pat. Off.

Ability of alkalies to hold soil in suspension

Good	Poor
1. Sodium metasilicate.	5. Soda ash.
2. Sodium sesquisilicate.	6. Sodium sesquicarbonate.
3. Trisodium phosphate.	7. Caustic soda.
4. Sodium orthosilicate.	

Effect of alkalies on greases and oils.

The quantity of oil which equal amounts of alkali solutions are able to emulsify is listed as follows:

Alkalies	Drops of oil
Sodium Metasilicate	24
Sodium Sesquisilicate	21
Trisodium Phosphate	19
Sodium Orthosilicate	17
Caustic Soda	16
Soda Ash	10
Sodium Sesquicarbonate	9

Removal of alkalies from work

While the need for alkali in detergent operations has proved important, it is equally vital that the last trace of alkali be removed from fabrics before completion of the work. However, only slight adjustment of the quantity of sour used is necessary to correct differences. The rinsing out of alkalies is primarily a matter of dilution—*Laundry Age.*

Enzymes and Protein Bodies In Soap

THE idea of incorporating certain enzymatic bodies in soap compositions is not particularly new, but little has been done to exploit the suggestion. Obviously, only those enzymes which require an alkaline medium can be used and therefore pepsin is unlikely to be of any service. It will be remembered that pepsin, which is the active principle of the secretion of the glands of the stomach, only acts in a slightly acid solution. The most useful and interesting enzymatic additives are trypsin, steapsin, lipase, etc., which possess unusual and potentially valuable properties for the soaper. Trypsin, sometimes known as pancreatin, is very similar in many ways to pepsin but is more resistant to heat and far more active when in alkaline solution in dissolving or removing fibrin and other proteins. Steapsin and lipase are enzymes possessing valuable emulsifying and saponifying properties.

INCREASES DETERGENT PROPERTIES

The presence of these enzymes in soap would increase materially its detergent ability in the presence of objectionable protein bodies, for instance, in the spotting of dry cleaned garments and in the preliminary soaking of clothes, particularly delicate silks, rayon, wool, etc., where the removal of protein matters and perspiration in the soil could be achieved without any ill effects on the fibre. The loosened particles of dirt then could be removed very easily by the use of a stronger solution of soap in the ordinary way. It is conceivable also that enzymatic soap preparations would prove useful for hair shampoos and special complexion soaps.

To achieve maximum efficiency, the presence of a small proportion of ammonia or enterokinase is recommended in the case of trypsin and steapsin. Enterokinase is an enzyme present in the small intestine which activates the pure pancreatic ferment. Mixed amine hydrochlorides also possess the property of activating these enzymatic bodies.

SOAP SPARING WASHING AGENTS

In Germany where fats are becoming increasingly scarce, the use of enzymatic bodies and special proteins is being encouraged. For instance, condensation products formed by the action of a suitable fatty acid and protein now are being used as soap sparing washing agents. D. W. Obst, *Allgemeine Oel-und Fett.-Ztg.*, 37, 108-9 (1940) states that such condensation products combine the properties of a protective colloid due to their protein fraction and of surface-active materials due to their fatty acid fraction. They can be said to be similar to soap in some ways, but are stable towards calcium and magnesium soaps.

The presence of protein-like bodies in soap has been shown to be an advantage in many cases and several widely different proteins have been used with success. For instance, a simply prepared but chemically complex body made by digesting 100 grms. gelatine or glue with 50 grms. water free lactic acid in the presence of 1 litre of distilled water for three hours in a closed vessel has interesting possibilities when neutralized with sodium carbonate. The presence of this protein body is particularly useful when enzymes are present in the soap.

Soap Exports in 1940

UNITED STATES exports of various sorts of soaps during 1940, as reported by the Bureau of Foreign and Domestic Commerce, follow:

	Pounds	Value
Medicated	280,513	$113,804
Toilet or fancy	8,431,384	$1,211,349
Laundry	14,076,311	$646,934
Powdered or flaked	1,630,707	$143,494
Shaving creams	321,883	$142.358
Shaving cakes, powders, and sticks	242,656	$65,029
Shaving soaps, bricks, pastes and powders	4,254,654	$287,642
Other soap	1,183,653	$128,020

Mercury Invades Soap Field

DESPITE the rising tempo of competition between leading soap brands, Theobald Industries, Inc., Kearny, N. J., has succeeded in distributing Mercury soap through 2000 independent grocery stores in two months in six New Jersey counties.

This remarkable record for a totally new product selling at 20 cents a package, while competing brands sold for 13 cents, for their household granulated soap was accomplished by well coordinated newspaper advertising and the selection of salesmen all of whom are over 45 years of age, believing that dignified veterans would best serve as liaison between the retailers and the manufacturer. Each of the nine salesmen was given a salary and an allowance of $10 per week for a car. The sales portfolio stated that Mercury granulated soap is a new, different soap that women like.

New Products and Processes

Uses of fluorophotometer extended

The fluorophotometer originally developed for vitamin B1 and B2 determinations is now widely used for the determination of vitamin A, B6, C, E, nicotinic acid, cholesterol, pantothenic acid, carotene and other bio-chemical substances as well as the elements iron, calcium and phosphorus, etc., according to Pfaltz & Bauer, Inc. In each case specific chemical procedures for the preparation and purification have been worked out, it is stated, thus simplifying accurate and inexpensive analysis. Its scope has also been further extended, it is pointed out, to determine minute turbidities. Full information about it will be furnished on request.

Almond Oil

Oil of sweet almond, oil of bitter almond, apricot kernel oil, avocado oil and related products, formerly imported largely from Europe, are now being manufactured by the American Almond Products Co. with a plant in the heart of the almond growing center of the United States. More information about the products will be given on application.

New sizes in bottles

The demand for the popular designs of the miniature bottles offered by Glass Industries, Inc., 10 W. 33rd St., New York, N. Y., in larger sizes has been so great that the company is now offering these bottles in one-quarter and one-half ounce capacities. The same designs and finishes which have proved to be so popular in the miniature sizes may be had in the larger capacities.

Jacketed dissolver

There are a number of instances where the jacketed dissolver made by L. C. Koven & Brother, Inc., can be used for dilution, extraction, leaching or mixing of many process ingredients, according to the makers. The tanks are steam-jacketed and insulated for raising and keeping the solution at the desired temperature. The material is mixed and dissolved by means of a flat metal paddle mixer, U-shaped, set so as to clear the bottom and sides of the vessel and permit withdrawal of the solution while the mixer is operating. There is also a quick opening cover for inspection and the introduction of solids. Further information about it will be forwarded on request.

Low cost homogenizer

The added profits and benefits from the use of homogenizing and emulsifying equipment are made broadly available to flavor, cosmetic and drug manufacturers by the new low-priced Logeman homogenizer, according to the Colloid Equipment Co., Inc. The unit provides a working pressure of 800 to 2500 lbs. and functions most effectively with materials containing oils or fats. The capacity is 15 gals. per hour. It operates on a 110v AC one-quarter horsepower motor. Full details about the homogenizer will be given upon application.

New homogenizer

Woman's service center

A home economics consultant service for manufacturers, to afford a closer tie-in between consumer and manufacturer, is to be offered by the Woman's Service Center which will open in the early autumn. The center will include a broadcasting studio, consulting offices, laboratories for product testing, food and art units, and "the home of new ideas" containing the latest developments in all phases of home making. Three floors of exhibit space for manufacturers will be available. Groups of women will be invited to visit the center daily. It is planned to offer manufacturers detailed reports and recommendations about their products.

Waterproof packing material

Waterproof Corroflex cushion packing material is announced by the Sherman Paper Products Corp. Through the addition of duplex sheet with asphalt lining greater strength plus waterproof qualities have been obtained, it is stated, thus insuring greater resistance against puncturing, abrasion and breakage. The material is available in a special all-purpose weight, in rolls from six to 72 inches and in sheets cut to size. Further information about it is obtainable.

Touch time recorder

A new electro-touch time recorder offered by the Widmer Time Recorder Co. automatically records the time of employees. The bottom left-hand corner of standard time cards is clipped off so that it is almost impossible to insert the cards incorrectly and thus get misplaced time registration. Further details about it will be sent on request.

Labeling and advertising advice

The Food, Drug and Cosmetic Institute is expanding its services to accommodate an increasing number of members, according to a recent announcement. It was organized last year to aid manufacturers in the legal and scientific problems of the food, drug and cosmetic industries. Membership is open to all who are affected by federal or state food, drug or cosmetic laws. A laboratory and staff of experts is placed at the disposal of members and the institute also represents members before governmental agencies. It was established as a clearing house for information on government rulings, commercial specifications and unfair trade practices but it also aids its members by obtaining proved scientific data necessary in advertising or labeling under federal and state laws. The Institute was incorporated as a non-profit enterprise.

Change can mixer

A recent development for mixing and dispersing a wide variety of products in removable containers or cans with capacities from 5 to 50 or more gallons is announced by the Abbe Engineering Co. The mixer incorporates a combined disintegrating and dispersing action which is said to produce a completely homogeneous mixture. In making lotions, emulsions, pastes, etc., it is pointed out, the combined kneading and grinding dispersion and thinning action in one operation makes it possible to produce a finished product readily. By turning the handle the mixing element is readily raised from the container and the latter is easily removed and a new container put in its place.

New Catalogs

R. F. Revson Co., 71 Seventh Ave., New York, N. Y., has been appointed agent for the Vollrath Co., Sheboygan, Wis., manufacturers of enamelled ware and stainless steel equipment for the cosmetic and allied industries.

Facts about white paint and better illumination are given in a cleverly compiled brochure issued by the Sherwin-Williams Co. The effect of paint on lighting and illumination, showing by chart and by photographs how scientific plant painting contributes to better working conditions and greater output, is analyzed. The coverage of various types of paint, the loss in reflection value with time and other useful data is included in the brochure which will be sent on request by the company.

"Restraint in Boom Times" saves us in depressions, according to an interesting article in the latest issue of the *Givaudanian*, published by Givaudan-Delawanna, Inc., 330 W. 42d St., New York, N. Y., which will be glad to send a copy to anyone interested.

Synthetic Alcohols useful as wetting agents, solvents, intermediates, etc., are listed in a leaflet issued by the Carbide & Carbon Chemicals Corp. A copy may be obtained from the company upon request.

Standard Synthetics, Inc., 119 W. 25th St., New York, N. Y., has issued its 1941 catalog. Due to the fluctuating tendency of the market, all prices have been withdrawn but inquiries will receive immediate attention. Essential oils, aromatic chemicals and specialties are listed.

Packages women like and dislike were featured in a survey conducted by *Sales Management*, published in its issues of February 15, March 1 and March 15. More than 1000 interviews and 50,000 queries were tabulated and digested in compiling the findings.

Eastern Mixing Equipment is adequately described and illustrated in a new 24-page catalog issued by the Eastern Engineering Co. One section of the catalog is devoted to engineering data on the selection and adoption of mixing machinery. Complete descriptions and illustrations of electrical fluids mixers in all sizes and types, ranging from one thousandth horse-power to 25 horsepower, are included. A section of blue prints furnishes dimensional data on various styles such as portable, vertical and side entering. Copies of the catalog will be sent to any one interested on request.

Books to Aid You

PLASTICS IN INDUSTRY. By Plastes. *240 pages, 6x9 in., 32 plates, 8 diagrams. Chemical Publishing Co. 1941. Price $5.*

This timely volume contains a wealth of practical information on the nature and uses of plastics in industry. The author wisely gives the limitations of plastics also. An idea of the contents of the book may be had from the following chapter headings: Definitions, Thermo-plastic and Thermo-setting resins, Specifications, Molding and Fabrication Technique, Engineering and Chemical Machine and Plant, Electrical Industry, Aircraft Construction, Motor Car Manufacture, Textile Industry, Building Industry, Synthetic Glues, Synthetic Rubber, Fancy Goods Trade, Furniture Manufacture, Packaging and Display, and Design.

STRATEGY IN SELLING. *J. C. Aspley. Seven pocket-sized manuals, 4½x8 in., for salesmen, each containing about 60 pages, substantially bound in cloth. The Dartnell Corp. 1940. Price $6 per set in convenient holder.*

These interesting and carefully compiled manuals prepared by the past president of the National Federation of Sales Executives give the sales strategies of top-flight salesmen in action. They virtually comprise a streamlined pocket sales training course. They are intensely practical and cannot help but be of value to all salesmen. As they may be carried in the brief case or in the pocket, they can literally be read by salesmen "on the run." A series of self-checking questions is included in the back of each book by means of which the reader may quickly check his grasp of selling strategies explained in the text. Impractical theories are eliminated. The manuals quote actual day by day experiences and strategies of some of America's ablest salesmen which can be adopted by others. The reception given the sales manuals by salesmangers has been so good, it is announced, that a series of seven sound films based on the books is being prepared. The sound films will be available at cost to salesmanagers who buy sets of the manuals for distribution to their salesmen. Titles of the manuals will give an idea of how practical they are: Planning the Sales, Getting Better Interviews, Making the Presentation, Disposing of Objections, Closing the Sale, Managing Your Time and the Way to Leadership. All who are engaged in any phase of selling should find the manuals to be not only interesting but helpful in a dollars and cents way.

THE 1940 YEAR BOOK. AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS. *Volume 17, 774 pages, 6x9 in., illustrated. Published by American Association of Textile Chemists and Colorists, Textile Institute, Lowell, Massachusetts, 1940. Price $3.50.*

Among the many things found in the year book is a complete list of articles published in the various issues of the Association's *Journal*, together with reports of its many committees. In addition, the committee on bibliography presents an annual report on the most important articles appearing in technical and scientific journals during 1939. The book contains standard A.A.T.C.C. test methods. Among the test methods is one describing the evaluation of wetting agents. Laboratory analytical methods in textile practice take up more than eighty pages. As usual, the year book contains a description of various dyestuffs and textile chemical specialties which have appeared during the past year. Among the chemical specialties are various wetting agents, deodorizing agents, degreasing compositions, emulsifying agents, cleansers, anti-foaming materials, antiseptics, insect repellents, mildew preventatives, preservatives, scouring agents, textile softeners and others. A trade-name is followed by the chemical description together with uses for the product. The year book further includes an alphabetical list of members.—M. G. deN.

AMONG OUR FRIENDS

▸ David A. Bennett, president of Albert Verley, Inc., Chicago, Ill., has loaned his private yacht, *Nedra B*, to the United States coast guard service. It will be used for the training of coast guard reservists. *Nedra B*, a 118-foot Diesel craft, has been owned by Mr. Bennett since 1935 and although it has been a source of pleasure to him, he believes that in its new role the boat will be a contribution to the nation's defense activities. The yacht was turned over to the coast guard early in May.

David A. Bennett

▸ Louis Gampert, vice president and sales manager of Felton Chemical Co., Brooklyn, N. Y., has just completed a month's trip through the middle-west and south. Felton branch offices in these territories were visited by Mr. Gampert, and sales representatives were given first hand information about the many new perfume and flavor synthetics which have been developed by Felton to alleviate current problems in connection with foreign supply.

▸ Arthur Winarick, head of the house of Ar. Winarick, Inc., New York, N. Y., makers of Jeris and Herpicide, held a reception at his summer resort, the New Concord Hotel, Kianesha Lake, N. Y., May 24, in honor of his son, Jules Winarick, who was recently married to Miss Gladys Bard. Young Mr. Winarick is associated in the business with his father and uncle, Nat Winarick. Among the guests present were Mayor Luis deHoyos and Mrs. deHoyos and Mrs. M. Upshur von Isakovics of Monticello, N. Y.; Mr. and Mrs. Michael Lemmermeyer, Mr. and Mrs. Edwin Booth, Jack Weisman, Mr. and Mrs. Charles Fischbeck and Nat Winarick.

▸ James McInnes, Commercial Solvents Corp., New York, N. Y., has been elected vice chairman of the Nassau County Park Fire Commission. He is also fire commissioner of Syosset, N. Y.

▸ Leidy Brendlinger, president of the Philadelphia Drug Exchange and secretary of the Flavoring Extract Manufacturers Assn., reports a most successful outing of the Drug Exchange at North Hills, Pa., June 4.

▸ J. H. R. Stephenson, formerly buyer of essential oils and aromatic chemicals for the Colgate-Palmolive-Peet Co., has joined the organization of Aromatic Products, Inc., New York, N. Y.

▸ Joseph Gartlan, who recently sold his interest in Majestic Products, Inc., New York, N. Y., is now associated with Theodore Foster & Co., Providence, R. I., with offices at 475 Fifth Ave., New York.

▸ M. Babani, head of the perfumery house that bears his name, who now makes his headquarters in New York, N. Y., has returned from a trip to Florida.

▸ Miss Miriam Gibson, Shulton, Inc., New York, N. Y., who left late in May on a four weeks' business trip throughout the middle and southwestern states, plans to spend two weeks in Mexico on vacation before returning to New York July 7.

▸ Miss Jessica Ogilvie of Ogilvie Sisters, following her two weeks' lecturing engagement at the Science in Beauty exhibit at the Museum of Science and Industry, New York, N. Y., went to Indianapolis, Ind., where she appeared daily for a week's lectures and consultations at the William H. Block Co. Her lectures there included instruction on special care of the hair during the summer months.

▸ Ernest L. Warner has organized Warner Products at 8457 Beverly Blvd., Los Angeles, Calif., for the distribution of cosmetics and wearing apparel.

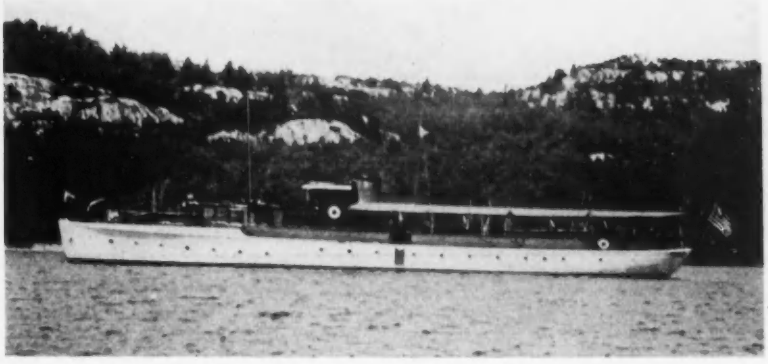
▸ H. Henry Bertram, former president of the Associated Manufacturers of Toilet Articles and last winner of the Hudnut Medal, has been elected vice president of Frederick Loeser & Co., Inc., Brooklyn, N. Y., department store. Mr. Bertram was graduated from the Columbia grammar school and after serving with the Tiffany studios and a Wall Street concern came into the toilet goods business in the firm of A. P. Babcock & Co. In 1933 he became toilet goods buyer for Frederick Loeser & Co. and in 1938 was made store manager. In 1940 he was elected assistant secretary. He served as captain in the World War and last year retired from the 102d cavalry of the New Jersey National Guard of which he was a lieutenant colonel and executive officer.

H. H. Bertram

▸ Dr. Hermann Frank, formerly assistant editor of the *Riechstoffindustrie und Kosmetik*, Zurich, Switzerland, has joined his father in Montevideo, Uruguay, S. A., where his father has been active for years as a representative of Swiss firms. Dr. Frank plans to represent chemical manufacturers of all kinds including cosmetic raw materials.

▸ David Fischman, for many years toilet goods buyer for Saks & Co., New York, N. Y., is now head of Lysanda, Inc., 30 Rockefeller Plaza, New York, N. Y. Seymour Fischman is secretary of the company. The concern distributes cosmetics.

▸ Dr. Theodore G. Klumpp, former chief of the drug division of the Food and Drug Administration, is now director of the division of drugs, foods and physical therapy and secretary of the Council on Pharmacy and Chemistry of the American Medical Assn. George P. Larrick is temporarily filling his old post in the F.D.A.



Nedra B, owned by David A. Bennett, now is in the service of the United States coast guard

Fixoresins

THE problem of stabilizing perfume materials is solved for the chemist who has discovered the uses of Schimmel Fixoresins.

These ideal light colored fixatives greatly increase the lasting property of a perfume.

They are very inexpensive to use, they do not discolor, and they have the additional advantage of a very high boiling point.

They are particularly recommended for toilet soaps, alcoholic perfumes, and toilet preparations in general.

Use about 2 to 5 ozs. to 100 lbs. soap
1/8 to 3/4 ozs. to 1 gal. perfume

In a full range of odors including

Bitter Almond	Lavender	Pineneedle
Carnation	Lilac	Rose
Citrus	Lily of the Valley	Sandalwood E. Indian
Eau de Cologne	Neroli	Vetiver
Hyacinth	Orange Flower	Violet
Jasmine	Patchouly	Ylang Ylang

SCHIMMEL & CO., INC.

601 WEST TWENTY-SIXTH STREET NEW YORK, N. Y.

CHICAGO • CINCINNATI • CLEVELAND • LOS ANGELES • MINNEAPOLIS • NEW ORLEANS • ST. LOUIS

▸ Charles L. Huisking, president of Chas. L. Huisking & Co., Inc., has announced the addition of Walter S. Goff to the Chicago sales organization of the firm. Mr. Goff, a veteran of the first World War, has been active in the drug and chemical field for more than 20 years, having received his original training under the late John F. Queeny of Monsanto Chemical Works, with which organization he was associated for more than seven years. Mr. Goff will collaborate with Robert H. Roane, manager of the Chicago Branch of the Huisking organization for the past five years, and will also cover the principal cities of the mid-western area. This increase in the sales staff is the result of the steadily increasing activity of the Chicago office and the expanded business of Chas. L. Huisking & Co., Inc., in the mid-western territory.

▸ Dex Neal, who recently resigned from Primrose House, is devoting his full time to the sale of cosmetic colors, a field with which he has had many years of experience. A statement recently published that he had retired on account of ill health was incorrect.

▸ Mme. Elsa Schiaparelli, head of the house that bears her name, returned by clipper May 27 from a trip abroad.

▸ Jack Allderige, former toilet goods buyer for Saks-Fifth Ave. and John Wanamaker, New York, N. Y., has joined the sales forces of Shulton, Inc., New York, N. Y., for which he will travel extensively.

▸ A. D. Henderson, Dr. Sweet's Root Beer Co., New York, N. Y., spends much of his leisure time in summer yachting on Long Island sound. He maintains a power yacht at Riverside, Conn.

▸ George W. Merck, Jr., son of the president of Merck & Co., Rahway, N. J., who is in the Naval Training Station at San Diego, Calif., won first prize of $50 and a goat which is to be used as a mascot on his ship in a recent national hook-up of Kay Kyser's College Of Musical Knowledge.

▸ J. B. Nethercutt, who was elected vice president of the California Cosmetic Assn. at its recent meeting, is head of Nethercutt Laboratories, Ocean Park, Calif., which has made notable progress under his direction.

▸ Dr. Fitphugh Johnstone, Philadelphia, Pa., who has been associated with the perfume and cosmetic industry for more than a quarter of a century, unknown to his many friends, has marked skill as a sculptor. In his spare time he is making a group of 30 prehistoric

Dr. Fitzhugh Johnstone makes wood carvings for a Philadelphia museum in his spare time

creatures showing the evolution of the vertebrates from the astraspis of 350,000,000 years ago to the Cro-Magnon man of 10,000 years ago. The work is being done for the American Museum of Natural History of Philadelphia. The accompanying illustrations show an elephant from the group and a prehistoric skull from another group.

▸ Dr. E. S. Guenther, chief research chemist, Fritzsche Brothers, Inc., New York, N. Y., has returned from a five weeks' trip through Mexico and Guatemala and reports promising possibilities for the further development of essential oil sources on the American continent. The trip was made by airplane and included stops in California.

▸ George H. Becker, who is well known in the midwestern territory, has been appointed Chicago, Ill., representative for Ungerer & Co. and will be in charge of the company's office at 325 West Huron St. Mr. Becker, who succeeds E. M. Tysdal, will give special attention to the Chicago area. Harry J. Ahles, who was formerly connected with Ungerer & Co., will again be a special representative for it, giving his attention to the territory west of Chicago. Mr. Ahles' office is located at 350 North Clarke St., Chicago.

▸ Dr. Alexander Katz, Florasynth Laboratories, Los Angeles, Calif., accompanied by his son, Leonard, is making an extended trip through the Northwest. He will visit Mr. Garvey in charge of the company's branch in Seattle, Wash., and from there will go to Vancouver, B. C., in the interest of the Canadian company where he will confer with Arthur Irish, branch manager there. The trip will be concluded in time for Dr. Katz to attend the meeting of the Flavoring Extract Manufacturers' Assn. in Atlantic City, N. J. The trip is being made by airplane.

▸ Richard R. Deupree, president of the Procter & Gamble Co., Cincinnati, Ohio, who is serving the government in the Office of Production Management, had his recent speech on advertising reprinted in the *Congressional Record* of May 5. It was reprinted in the *Record* on motion of Rep. Roy O. Woodruff of Michigan who asked that the speech be reprinted "because of the speaker's pre-eminence in the field of business and advertising and the contribution his address makes to a subject of such widespread interest throughout the country."

▸ Douglas Wakefield Coutlee, Merck & Co., New York, N. Y., participated during May in four meetings in the advertising and editorial fields with which he has been identified for many years. He was one of the principal speakers at the annual meeting of the American Assn. of Industrial Editors in Philadelphia, Pa. Then he was in charge of the regular meeting of the Pharmaceutical Advertising Club of New York. Following this he attended the spring meeting of the Association of National Advertisers in Rye, N. Y., where, as chairman of the Direct Mail Advertising Committee, he presided at the session devoted to that subject. When this was done he went to the annual meeting of the House Magazine Institute in New York at which he was re-elected to the board of governors.

▸ Kenneth G. Smith, president of the Pepsodent Co., Chicago, Ill., has sold his yacht *Kenkora II*, which has a cruising radius of 6,000 miles, to the United States Navy. The yacht which was sold at a small fraction of its cost will be delivered to the Boston navy yard.

▸ Pierre Bouillette, of Companhia Gessy S. A., Sao Paulo, Brazil, has returned to Sao Paulo for another two years following a short stay in New York, N. Y. Mr. Bouillette reports that business in the industry in Brazil is very good but there is much concern over adequate supplies of raw materials. Sporadic tests have been made on a small scale, he reports, to grow aromatic plants from which essential oils may be obtained. The idea has possibilities, he believes, provided more specialists are available as well as more machinery and better transportation.

▸ Malcolm Stearns, sales manager, Shulton, Inc., New York, N. Y., has returned from a trip to Washington.

▸ Herbert T. Roden, general chairman of all details for the coming meeting of the Toilet Goods Manufacturers Assn. of Canada, promises an outstanding convention at the Seigniory Club, Montebello, Quebec, June 16-18. It will begin unofficially on the evening of June 15 with a reception to members and guests by President J. Stenhouse.

▸ G. Rocherolle, Roger & Gallet, New York, N. Y., recently greeted representatives of the company on the Pacific Coast on his first trip to the northwestern part of the United States.

NEWS and EVENTS

Sixth convention of T. G. A. considers emergency problems

The sixth annual meeting of the Toilet Goods Assn. at the Waldorf-Astoria hotel, New York, N. Y., attracted a good attendance June 9, 10, and 11.

The morning of the first day was taken up with reports of various committees and in the afternoon Herman L. Brooks, president, made his address on the activities of the association during the past year. This was followed by the Board of Standards report and the address on legal trends in the industry by the counsel. Dr. E. N. Bressman, assistant director of the Dept. of Agriculture, Office of Foreign Agricultural Relations, then spoke on Latin American agriculture and its relation to perfume raw materials.

No business sessions were planned for Tuesday. Wednesday morning an open forum for active members and the election of officers was scheduled. An hour in the afternoon was devoted to a symposium by six beauty editors on the theme of what modern women are thinking about cosmetics. Those who took part were Miss Hildegarde Fillmore, *McCalls;* Miss Alice Hughes, *New York Post;* Miss Hazel Rawson Cades, *Woman's Home Companion;* Miss Elinor Neff, *Harper's Bazaar;* Miss Bernice Peck, *Mademoiselle;* and Miss Antoinette Donnelly, *New York Daily News.* This was followed by a series of short talks on the effect of the defense program on raw materials and supplies. The speakers scheduled were: A. L. van Ameringen, van Ameringen-Haebler, Inc., on "The Jig Saw Puzzle of Perfume Materials"; John B. Tuttle, "Oils and Fats"; A. P. Hickcox, "Metal Products"; Samuel H. Clark, "Minerals and Dry Materials"; J. R. Turnbull, "Plastics" and Eugene F. Bertrand, Owens-Illinois Glass Co., "Glass Containers." A question and answer period followed.

Luncheons as usual were held between sessions and provided an opportunity to renew old friendships and to make new ones.

The annual golf tournament was held at the Ridgewood (N. J.) Country Club on Tuesday. Other entertainment included a production, "From the Gay Nineties to the Naughty Forties," at the hotel Monday evening which was followed by a supper dance; and the annual banquet Wednesday evening at which golf prizes were distributed, as well as souvenirs.

Entertainment features were arranged by the convention committee composed of LeRoy Root, chairman; Philip Haebler, Milton Martin, Charles Fischbeck, Karl Voss, Michael Lemmermeyer, William P. Murray, Walter E. Klaas, A. C. Burgund and J. B. Walker.

Highlights of the convention will be published in the next issue.

Unemployed forming mutual company to make raw materials, etc.

A mutually owned company is being formed by unemployed European and American chemists under the leadership of Dr. Henry Goldschmiedt of New York, N. Y. They plan to open and operate a laboratory to make chemicals, formerly imported from Europe, and also certain pharmaceuticals. A gathering of about 50 such chemists in New York recently heard talks by Dr Goldschmiedt and Dr. J. Leon Lascoff on the plan which was discussed at length. Funds would be raised by the sale of stock, some of which has already been subscribed.

T. G. M. A. of Canada annual convention June 16 and 17

The Toilet Goods Manufacturers Assn. of Canada will hold its annual meeting at the Seigniory Club, Montebello, Quebec, June 16 and 17. As usual, a practical, vital business program has been planned supplemented by special entertainment features.

Charles Godefroy aids war relief with his own aerial movies

Charles W. Godefroy, president of the Godefroy Manufacturing Co., St. Louis, Mo., was invited to Ottawa, Canada, on May 16 to show motion picture films he photographed on a 10,000 mile aerial jaunt north of north Canada last summer. He was invited to Canada to show the films by R. A. Gibson, deputy commissioner for the Administration for Northwest Territories of Canada.

Mr. Godefroy offered use of the films to the Maple Leaf Association of the U. S., for display in Canadian war relief effort.

Mr. Godefroy left St. Louis last July 27 for his northern aerial trip, traveling the regular airlines to Edmonton, Canada. At Edmonton, he took a chartered, pontoon-equipped plane and continued into the fastnesses of Victoria Island, in the Arctic Ocean, 300 miles inside the circle and 5,000 miles from St. Louis. He spent most of his 21-day aerial odyssey filming scenes of the far north regions which reportedly never before had been photographed.

Dr. Edwards sues Elizabeth Arden for royalties on suncream formula

Dr. Scott R. Edwards, a physician, has instituted suit against Elizabeth Arden, Inc., in the New York Supreme Court for $50,000. It appears that Dr. Edwards made an agreement with the company in 1933 by which he was to receive $12,500 and royalties for a formula designed to prevent or ameliorate sunburn. He received this sum and the company, according to the complaint, used the formula in making Ardena Sunpruf Cream, a name which the concern had previously used for another sunburn preparation. Dr. Edwards claims that the company did not continue to pay him royalties.

In the answer, the company admitted the purchase of the formula but in the autumn of 1935 complaints were received from customers about the cream in which Edward's formula was used. Purchasers also complained, the answer states, that after the cream had stood on the shelves for a little while it became black and unsaleable. As a result, the company states that it discontinued the Edwards' formula in making the cream. It is also stated that the obtaining of patent rights was one of the conditions of the agreement and the application for a patent was rejected.

The case is pending.

Firmenich & Co. expands laboratories to handle increasing business

To keep abreast of its expanding business, Firmenich & Co., 135 Fifth Ave., New York, N. Y., found it necessary to considerably increase its laboratory facilities. The new and enlarged laboratories occupying two floors were officially opened May 22 when the company had a house warming, attended by many in the trade. The occasion was also the fifth anniversary of the establishment of the company as sole selling agent for Chuit, Naef & Cie, Geneva, Switzerland. Under the able management of Rupert C. Watson, the American company has made excellent progress. Andre Firmenich of Geneva, Switzerland, is president.

Merchandise mart for retailers in mountain states area established

Merchandising Exhibitors, Inc., has been incorporated in Denver, Colo., to promote a gift and art mart for the mountain states trade area. A six-story structure in the heart of Denver's business district has been leased to enable retailers in the 14 states trade area to shop at the mart conveniently. The merchandise center will operate under the name of the Mountain States Gift and Art Mart. Anthony Venneri is president.

Sparhawk develops fixatives from skunks and muskrats

Working on a shipment of glands taken from muskrats trapped in the 5000-acre Blackwater marshes of Dorchester County, Maryland, which was sent to him by the U. S. Dept. of the Interior, Charles V. Sparhawk, Sparkill, N. Y., has succeeded in extracting the odorous principle which resembles Tonquin musk. The glands are about an inch in diameter. About 25,000,000 muskrats are trapped each year from government refuges such as that in Dorchester county and elsewhere. The fur is the chief reason for trapping the rodents, but there is also a sale for the meat and, by reason of the work of Mr. Sparhawk, the government hopes to find a good market for the glands as the source of a new and desirable fixative. It has been computed that the total catch of muskrats in the United States annually would yield more than 100,000 quarts of tincture. About one per cent of the tincture is used in a perfume.

Meanwhile Mr. Sparhawk announces further improvements in the fixative he derived from skunks, previously reported in this journal. Skunks for Mr. Sparhawk's purposes are supplied from a skunk farm in the Pocono mountains. The skunk, which has claws and is flatfooted and belongs to the weasel family, is strapped to a board and its tail is held down with a rubber band to prevent spraying. A glass receptacle with a rubber bulb is used to extract the fluid. About 2 cc. of fluid are obtained from each milking in this way. The fluid is processed by removal of foreign substances and refined. It seems that it loses its objectionable odor when introduced into a perfume composition; and curiously, if the essential oils and other elements which make up the composition are removed by a skilled chemist, the odor returns.

A number of leading perfumers to whom the products, petra, from skunks, and muskat from muskrats have been submitted are reported to be favorably impressed with the possibility of the development of these new animal fixatives in adequate quantities to meet the needs of perfume and soap firms.

Left, Mary Kathryn Kay holds one skunk as another climbs on her shoulder to get acquainted; right, a healthy specimen of muskrat which is source of new fixative and above is a view showing the density of muskrat houses on Deadwood Marsh, Blackwater Refuge, Cambridge, Md.

Price ceilings likely in cosmetic and allied fields soon

Hearings are to be held soon by Leon Henderson, price administrator for the federal government, at which representatives of the industries associated with essential oils, gums, waxes and other materials entering into the manufacture of cosmetics, soaps, flavors and pharmaceuticals will be invited to give their reasons why price ceilings should not be fixed for the commodities they use and sell. According to responsible opinion in Washington, it seems reasonably sure that price ceilings will eventually be fixed. Col. George S. Brady is probably the chief influence in determining such policies in the Office of Price Administration and Civilian Supply. Other officials likely to be called in for aid are F. J. Stock, an executive of the Walgren Drug Co., and James S. Adams, vice president and director, Colgate-Palmolive-Peet Co., who are serving in the OPM.

It is claimed that prices in the perfume and allied industries have, in some instances, risen 500 per cent, but manufacturers are not blamed for this. No price ceilings will be established without a careful consideration of all factors, it is stated.

Nine toiletries shows for Southeast in Aug. and Sept.

The Southeastern Toilet Goods Assn., Atlanta, Ga., is planning a series of nine toiletries shows of pre-holiday lines to be staged this autumn. The shows are to become an annual affair.

The schedule for the shows follows: Charlotte, N. C., Aug. 4-6; Nashville, Tenn., Aug. 12-15; Memphis, Tenn., Aug. 18-21; New Orleans, La., Aug. 25-29; Birmingham, Ala., Sept. 3-5; Atlanta, Ga., Sept. 8-12; Jacksonville, Fla., Sept. 17-19; Tampa, Fla., Sept. 22-25; Miami, Fla., Sept. 29-Oct. 3. Already a representative list of toilet goods manufacturers have reserved space for the shows.

Evasion of new excise taxes by building up floor stocks stymied

Manufacturers or dealers who try to evade increased excise taxes by building up floor stocks will find that the new laws include a tax on floor stocks in addition to the new excises, Washington reports.

American Pharmaceutical Assn. Meeting in Detroit, August 17-23

The annual convention of the American Pharmaceutical Assn. will be held in the Hotel Statler, Detroit, Mich., August 17 to 23.

Perfumeria Dubarry S. A. of Argentina makes excellent progress

Perfumeria Dubarry S. A., Buenos Aires, Argentina, is showing marked progress under the able direction of Nestor J. Curat, president; Enrique T. Lara, secretary; Jose I. Lopez Vila, comptroller; Diego F. Carranza, sindico and Antonia L. Gallo, sub gerente. The company which was established by Blas L. Dubarry issued its 1941 balance sheet March 14 which gave a gratifying report of the company's position. Assets are $2,563,177.74.

Why no rain insurance was taken out by Foragers for outing this year

The 43rd annual outing of the Foragers will take place June 28 when a trip will be made to Green Gables at North Monmouth Beach, N. J. The trip will be made by boat from New York to Atlantic Highlands and from there by bus. According to Herbert Georgi, president, and Walter Conklin, vice-president, it has rained only once on the day of an outing in the entire history of the association; and then it was light. For that reason, the association is not going to take out rain insurance this year.

Guardian asked for head of Brunswig Drug Co.

The appointment of a guardian for a $400,000 estate belonging to Lucien Napoleon Brunswig, head of the Brunswig Drug Co., Los Angeles, Calif., is sought by his wife and daughter. Mr. Brunswig is now more than 80 years of age and has not been active in directing the company for two years.

Beauty exhibit emphasizes scientific and artistic use of cosmetics

At the recent two-week "Science in Beauty" exhibit at the Museum of Science and Industry in Rockefeller Center, New York, N. Y., one of the highlights was the Beauty Forum demonstrations in which members of the audience were asked to participate. During the demonstrations, lecturers explained the various steps in beauty care, stressing both the scientific and artistic use of cosmetics. They built their program around the theme: "The beauty profession is going seriously

Miss Terry Kugel, representative of Ogilvie Sisters, applies mascara from an 18th century East Indian mascara bottle at the recent "Science in Beauty" exhibit in New York

scientific. Though it has journeyed into the laboratory, it still emerges with glamor." The exhibit drew hundreds of visitors.

Los Angeles Soap Co. offers Bible and classics as premiums

The Los Angeles Soap Co., Los Angeles, Calif., is using the inner wraps for its soaps for printing premium offers in a new advertising campaign in which books are being offered to consumers. Believing that books are due for a comeback, especially the classics, the company is giving a long list of books, including the Bible, Shakespeare's works, Mark Twain's, history of the United States, to mention a few, for one box top of their products and a small amount of money, the latter depending on the book and commencing as low as 15 cents. Some of the book premiums consist of several volumes by an author, in which case a number of box tops are required along with a corresponding larger amount of money. Considerable interest has already been aroused even though the campaign has only just started. The campaign is being pushed rather intensively via the radio, newspaper and point-of-purchase publicity.

Visitors to the Beauty Forum at the recent "Science in Beauty" exhibit at New York's Museum of Science and Industry await their turns in a demonstration of correct make-up

Banquet to old employes of all companies in Southern California

Sponsored by the Southern California Committee for Understanding of Private Enterprise, working in co-operation with the National Association of Manufacturers, a great banquet was held at the Biltmore Hotel, Los Angeles, Calif., in April as a testimony to old and faithful officers and employes of private companies. Every one in attendance had to have been in service for 25 years or more. The Los Angeles Soap Co. sent eleven, all of whom had been with the firm 30 years or more. The oldest was A. E. Slaught, vice-president, formerly in charge of laundry sales and still actively connected with the company. Mr. Slaught has now entered upon his 53rd year with the company. Another present was William Martin, a factory worker for 35 years, who has not lost a day through accident since he joined the company's organization. He operates a soap cutting machine.

Tone Laboratories open Fifth Ave. offices in New York

Tone Laboratories, Inc., Long Island City, N. Y., has opened wholesale offices at 685 Fifth Ave., New York, N. Y., for distributing Tone cosmetics.

One visitor receives a facial and the other young woman is having her hair dressed at the "Science in Beauty" exhibit; lecturers explained the various steps of the demonstrations

How cosmetic credit men insure better golf scores at outing

When the Drug, Cosmetic and Chemical Credit Men's Assn. holds its annual outing in Great Neck, N. Y., June 20, members who enjoy golf will find it much easier to produce better scores than they did in previous years due to the fact that another course, the Sound View Golf Club, Great Neck, has been selected as the site for the momentous tournament.

Members and guests will gather at the home of Nat Otte, Great Neck, around noon and after luncheon will enjoy golf or other entertainment that has been planned. In the evening a grand party with many distinctive features will be held immediately after dinner. Outings of this group are most popular in the allied trades.

More than 115 papers for American Society for Testing Materials meeting

More than 115 technical papers and reports will be presented at the 1941 annual meeting of the American Society for Testing Materials at the Palmer House, Chicago, Ill., June 23 to 27.

Milkmaid, Inc., opens showrooms at 647 Fifth Avenue

"A Farm in Fantasy" is the theme for the decoration of the new showrooms of Milkmaid, Inc., which were recently opened at 647 Fifth Ave., New York, N. Y. Milkmaid products include a cleansing milk made of 80 per cent whole pasteurized milk, a foam bath and a cleansing milk for dry skin, and other preparations.

The showrooms, decorated by Devah Adams, who is known for her interior designs, include one in Early American style complete with hook rug, rocker and butter churn. This room opens into one representing a garden. Whitewashed shingles form the walls, flowers bloom at the sides of the room and tiny daisies are sewn on the green carpet, outlining a path to the bas-relief mural by Dorothy Ennever, which covers one entire end of the room. Garden furniture is used.

Milkmaid creams which were launched in the fall of 1940 are now distributed nationally. Dr. Nicholas Marcotoon, well-known chemist who developed stable formulas for these products, reports that because of the very structure of milk itself he has had to evolve a variable formula. Each batch of Milkmaid has to be analyzed, tested and "balanced' if the standard of cream is to be maintained. This is because some milk is slightly more or less acid (variation of pH), depending upon what the cow has been eating, the season of the year, breed of cow, etc. Another important factor in making milk sufficiently stable for use in milk preparations is maintaining such a degree of sterility that the different bacterias and fungi's group which would cause it to spoil cannot thrive on it.

White King Soap Co. puts books on grocers' shelves

Books as premiums are being put on grocers' shelves by the White King Soap Co., Los Angeles, Calif., in carrying out a novel merchandising idea. By sending in box tops of White King granulated soap, purchasers are able to get standard and popular books for 20 to 70 cents each instead of the regular prices. Lists of books are printed on the cartons. At present 57 different titles are offered with more to be added. All newspaper and other advertising of the company tells women to look for the books at their grocers'.

The garden showroom of Milkmaid, Inc., has a bas-relief mural covering one whole end wall

FDA seizes 8,434 bottles of mislabelled pure vanilla extract

The Food and Drug Administration seized 8,434 bottles of so-called pure vanilla extract in March found to contain artificially flavored imitation vanilla containing resins and little if any vanilla extract.

BIMS begin season at Bloomfield Field Club

The wholesome good fellowship which always marks the meetings of the BIMS was particularly noticeable at the first golf meeting of the year at the Forest Hill Field Club, Bloomfield, N. J., May 15. Weather conditions were ideal for golf; and as usual after golf and an informal get-together a dinner was held in the evening. Martin Schultes distributed prizes to:

J. Blaine Walker, Jack Coughlin, Paul Miller, William W. Huisking, Frank Mahr, George H. Fuller, Wallace A. Bush, William Lambert, C. R. (Bud) Keeley, Joseph F. Kelly, Charles Tanner, Albert C. Burgund, I. H. Bander, Fred J. Beyer, Emmett Altshul, H. G. Ewen, Ross A. White, William F. Zimmerman, Augustus H. Bergmann, B. H. Badanes, Dudley Shaw, Frank A. Nicholson, Alfred F. Brady, Walter A. Conklin, Newell Neidlinger, E. A. Bush and Karl Voss.

Nine blind hole handicap golf featured in Missouri

The Associated Drug & Chemical Industries of Missouri has formed a golf section and has elected Frank A. Barada as its chairman. Six meetings will be held at various clubs in the St. Louis district.

The first meeting of the season was held at the Sunset Country Club when 20 members enjoyed an afternoon and evening. Paul J. Horton of National Package Drugs had low score. However it was a handicap tournament based on nine blind holes. Prize winners were:

First, H. M. White, guest of James A. Ballard & Co.; second, I. J. Stanley, Jr., Monsanto Chemical Co.; third, Franc A. Barada, Fritzsche Brothers, Inc.; fourth, S. O. Taylor, Solvay Sales Corp.; fifth, Dan. M. Sheehan, Monsanto Chemical Co.; sixth, Ben J. Brinkman, Merck & Co.; seventh, Ray Caulk, Monsanto Chemical Co.; eighth, David B. White, James A. Ballard & Co.; ninth, Paul J. Horton, National Package Drugs, and tenth, E. J. Cunningham, Monsanto Chemical Co.

Amount of perfume kept by cultured woman revealed by burglary

The type and amount of perfume kept on hand by a cultured woman was revealed May 15 in a novel way. On that day Mrs. John H. Harden, a resident of Oklahoma City, Okla., reported to the police authorities a $1,684. loss of jewelry and other property by burglary. The loss would have been greater but three pieces of luggage loaded with loot were recovered when the burglars were surprised.

The property stolen included 25 bottles of perfume valued at about $375. All of Mrs. Hardens perfume was taken. The perfumes stolen as listed by the police were: Reflection, Surrender, Mon Image, Opening Night, Impromptu, Carefree, Shocking, Pinx, Sweet Pea, Shalimar, Joy, Presence, Indiscreet, My Sin, Duchess of York and a bottle of Blue Grass toilet water.

Perfumes in pottery containers offered in Canada

Perfumes packaged in pottery containers made in New Brunswick, British Columbia, Canada, are being offered by Royal Canadian Perfumes. The odors are suggestive of the fruit tree blossoms grown in Canada.

More than 95 per cent of space for chemical exposition engaged

Although the 18th exposition of chemical industries will not be held until the first week in September at the Grand Central Palace, New York, N. Y., more than 95 per cent of the space has already been engaged.

Obituaries

Percy E. Anderson

Percy E. Anderson, head of the John H. Rodriguez Co., broker in essential oils and drugs, who had devoted his entire career of nearly half a century to the industry, died of pneumonia, May 27.

Dr. E. C. Clemmensen

Dr. Erik Christian Clemmensen, president of the Clemmensen Chemical Corp., Newark, N. Y., and well-known chemist, died May 19 of a heart attack. He was 65 years old.

Dr. Clemmensen who was born in Denmark came to the United States in 1900 after studying in Germany, following his graduation from the Royal Polytechnic Institute at Copenhagen. For fourteen years he was a member of the research staff of Parke, Davis & Co., Detroit, Mich. He was one of the founders of Commonwealth Chemical Corp. which later merged with Mathieson Alkali Works. In 1929, the firm was sold to Monsanto Chemical Co., St. Louis, Mo., and Dr. Clemmensen served on the latter's research staff. He founded his own company in 1939.

In addition to his widow, he is survived by three brothers and a sister in Denmark.

Walter B. Johnson

Walter B. Johnson, assistant vice-president of Bristol-Myers Co., died in White Plains (N. Y.) Hospital, May 10, from a heart attack followed by pneumonia. He was 55 years old. Mr. Johnson had been with Bristol-Myers Co. since 1913. At the time of his death he was sales promotion head.

George K. Morrow

George K. Morrow, formerly chairman of the board of Hecker Products Corp., makers of cleaning powders, soaps, etc., died May 19 in New York, N. Y. He was 67 years of age.

Hecker Products Corp., of which Mr. Morrow was president and chairman of the board until his resignation in 1940, is the successor to the Gold Dust Corp. and the American Cotton Co. Mr. Morrow who came out of retirement to reorganize the American Cotton Co. had served as president of these two companies.

He was born in Canada but spent his business life in the United States. Early in his career he was associated with Quaker Oats and Swift & Co. He founded the merchant brokerage firm of Morrow and Co. in New York, N. Y.

Mrs. Margaret H. Watermeyer

Mrs. Margaret Hawes Watermeyer, widow of Frederick E. Watermeyer, late president of Fritzsche Brothers, Inc., died on May 13 at Summit, N. J., after a long illness.

Services, attended by a number of close friends and by the executives and department heads of Fritzsche Brothers, were held May 16 at St. Georges Chapel, New York, N. Y., followed by burial in the Watermeyer mausoleum at Kenisco, N. Y.

Mrs. Watermeyer left no survivors.

Trade Jottings

Northam Warren Corp. is offering a new larger size of Cutex in a combination package. The new bottle contains 5/8 fluid ounces as compared with the one-third ounce in the 10-cent size. The new package is called Two-Step and contains a bottle of polish and a bottle of remover, set in a plastic tray. The same firm is offering Odorono cream in a new larger size.

Primrose House is offering its Chiffon face powder at half price during the month of June.

Lili Perfumes has introduced Easter Lily toilet water.

Helena Rubinstein has added a foam bath to her Apple Blossom sequence. It comes in a tall shaker box with a "scoop" opening and contains enough for 15 to 20 baths.

Revlon Products Corp. is bringing out Revlon Quartette this month. The package contains nail enamel, lipstick, Cheek Stick and Adheron.

Alfred D. McKelvy Co. adds a hair preparation to its line of Seaforth products for men. This is called Seaforth Hairdressing and, according to the company, introduces the use of Tanniform, a type of tannic acid which acts as a scalp stimulant. Another aspect of the new product is the absence of mineral oil. Seaforth combines a non-mineral oil with a highly volatile base. The new hairdressing comes in the familiar stone jug.

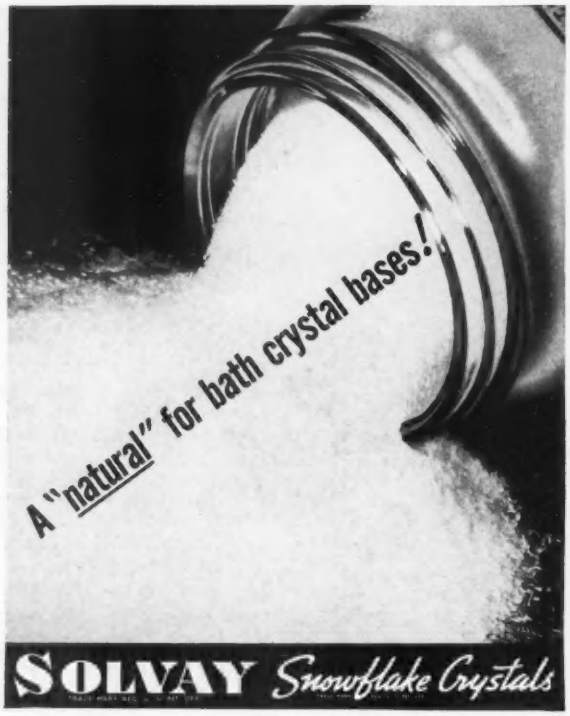
Kathleen Mary Quinlan is offering Double Date, a two-time lipstick in a leather case. The kit contains two lipsticks, combined for night and day use, designed for blonde, brunette or medium complexions. The cases are in pastel shades, pink, yellow and blue. The same firm is offering a harmonized make-up package, containing face powder, foundation lotion and lipstick.

Harriet Hubbard Ayer has added two items to its line. One is Beautifying Mask and the other is Bubbling Bathsheen. The latter is offered in two fragrances, Pink Clover and Honeysuckle.

Shulton, Inc., is sponsoring again its Father's Day window display contest on Early American Old Spice men's toiletries. There are two classes: 1) department and specialties stores; 2) drug stores. Thirteen prizes will be awarded in each class. The contest will close July 1 and winners will be announced on or before July 15.

Cosmetiques Tussy has added another fragrance to its summer cologne series. This is Blue Iris. The other odors are Mountain Laurel Bouquet, Tropical Spice and Natural. The six-ounce bottles, usually retailing for $1.00, are being offered at 50 cents.

Charles of the Ritz has brought out a new powder base. It is called Complexion Veil and is a thin creamy paste which comes in three shades, French Buff, Rose Beige and Suntan.



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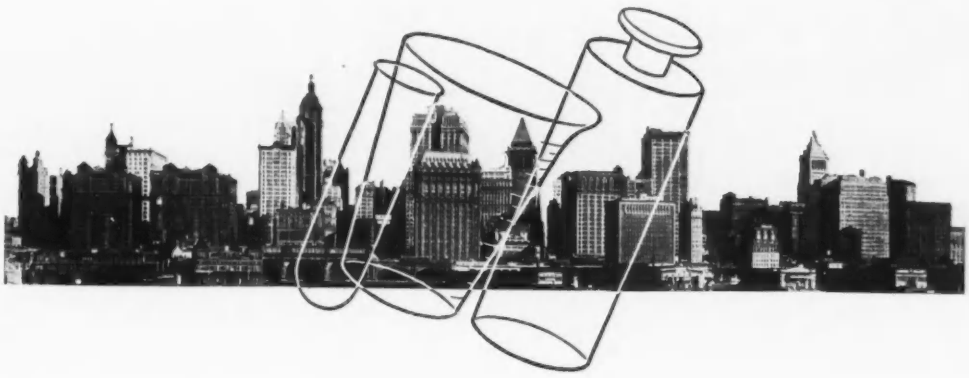

Demand for Synthetic Oils

ESSENTIAL oil and aromatic chemical markets were firm and excited over the past month. The upward trend in prices that has been noted for some time was extended with many items reaching an all time high level.

Diversion of materials to defense industries has been the principal cause of difficulty. Secondary trouble spots were curtailment of imports and the loss of trained workers to defense plants. This trend is vitally important since it is regarded as a foretaste of what is to come rather than for its immediate implications.

Defense Affects Industries

The peace industries affected thus far are but a scattering of the American industrial machine but recent surveys show that their numbers are steadily growing. "Unlimited national emergency," declared by the President, will in all probability place a further burden on industry in the months ahead.

A number of imported articles continued to reflect the war news from abroad, particularly the so-called collaboration between France and Germany. Ocean shipping was more acute. Reports from Washington contained the names of specific steamers, recently operating in intercoastal services, which are to be used between the Pacific Coast and the Far East. It remains to be seen whether more vessels will be diverted to the latter service, leaving railroads to handle coast-to-coast traffic.

A development of interest was the sudden but not entirely unexpected advance in refined glycerine. The increase, amounting to two cents a pound, was the first change since November 1938. The advance was made to distribute the higher production cost between the price of soap and the price of glycerine. Based on reports from producers, soap had borne the full burden of mounting costs of fats.

Demand for Synthetic Oils

Increasing demand for a number of synthetic oils to replace those which formerly had been imported into the United States has been reflected in several of the aromatic chemicals. Linalool, linalyl acetate and citral have been commanding considerable attention. Phthalate esters are difficult to obtain since a good part of the output of the basic material has been diverted to the manufacture of more vital products in connection with the defense program production.

The picture has been further complicated by labor difficulties and the problem of obtaining ordinary machinery and accessories necessary in setting up new production in the chemical industry. Reduced output of benzyl chloride was felt in such products as benzyl acetate, benzyl alcohol and benzyl benzoate.

For a time some makers of vanillin were behind on deliveries. Such a development was attributed to a tremendous increase in consumption brought about by the high prices and shortage of vanilla beans and by a heavier demand from confectioners in connection with the present emergency. New crop whole Mexican beans are going directly into use.

Spanish Oils Difficult to Get

In essential oils, importers reported increasing difficulties in efforts to obtain replacements from Spain of lavender, rosemary and thyme oils. Should that country officially join the Axis powers the supply of these articles would be completely cut off. Dealers carrying small stocks of Spanish oils were reserving them for their regular trade and prices were virtually nominal.

California citrus oils enjoyed a good demand. Shortage of imported lemon and orange has placed a heavy burden on the California products, especially since the arrival of warm weather which has stimulated sales in the beverage trade. The price of domestic lemon oil has remained very stable but orange was advanced in April and the market has remained very firm at the higher levels. Improved demand for lime oil was accompanied by an upward trend in quotations over the past month. Prices on Mexican lime were considerably higher as the result of unfavorable crop reports.

Some Floral Oils Arriving

Occasional lots of French floral oils have been arriving here. They have been coming by way of Martinique for trans-shipment to the United States. The hopes of some factors in the trade were lifted by rumors that the French colonies, from which geranium, vetivert and ylang ylang are obtained, were gradually joining the Free French.

PRICES IN THE NEW YORK MARKET

(Quotations on these pages are those made by local dealers, but are subject to revision without notice)

ESSENTIAL OILS

Almond Bit, per lb.	$4.25	Nom'l
S. P. A.	4.10@	$4.30
Sweet True	1.80@	2.00
Apricot Kernel	.55	Nom'l
Amber rectified	1.90	Nom'l
Angelica root	150.00	Nom'l
Anise, U. S. P.	.90@	1.00
Aspic (spike) Span.	2.55@	2.60
Bay	1.25@	1.35
Bergamot	20.00	Nom'l
Artificial	3.00@	9.00
Birch, sweet	1.60@	3.00
Birchtar, crude	.60	Nom'l
Birchtar, rectified	1.50	Nom'l
Bois de Rose	2.50@	3.25
Cade, U. S. P.	.70@	.75
Cajeput	.98@	1.05
Calamus	18.00	Nom'l
Camphor "white"	.50	Nom'l
Cananga, Java native	6.75@	7.00
Rectified	7.50@	7.85
Caraway	9.50@	10.00
Cardamon, Ceylon	25.00@	30.00
Cassia rectified, U. S. P.	2.55@	3.00
Cedar leaf	1.05@	1.40
Cedar wood	.30@	.52
Celery	22.00@	28.00
Chamomile	110.00	Nom'l
Cinnamon	9.75@	32.00
Citronella, Ceylon	.54@	.57
Java	.52@	.55
Cloves, Zanzibar	1.25@	1.40
Copaiba	.55@	.70
Coriander	18.00@	22.00
Imitation	7.25@	8.25
Croton	3.00@	3.75
Cubebs	3.75@	4.00
Cumin	7.75@	8.25
Dillseed	5.50	Nom'l
Erigeron	2.20@	2.75
Eucalyptus	.67@	.81
Fennel, Sweet	2.25@	2.55
Geranium, Rose, Algerian	15.25@	18.00
Bourbon	15.00@	18.00
Turkish	3.25@	3.80
Ginger	7.50@	8.10
Guaiac (Wood)	3.75@	4.00
Hemlock	1.20@	1.25
Juniper Berries	9.50	Nom'l
Juniper Wood	.75@	.80
Laurel	5.00	Nom'l
Lavandin	6.00	Nom'l
Lavender, French	7.50@	10.80
Lemon, Italian	5.75@	6.25
Calif.	3.25@	4.00
Lemongrass	1.50	Nom'l
Limes, distilled	6.00@	6.75
Express	9.00@	10.00
Linaloe	3.00@	3.25
Lovage	85.00@	95.00
Marjoram	6.00@	17.00
Neroli, Bigrade, P.	340.00@	380.00
Petale, extra	375.00@	400.00
Olibanum	5.25@	5.75
Opopanax	18.00@	20.00
Orange, bitter	5.00	Nom'l
Sweet, W. Indian	3.00@	3.50
Italian	8.25	Nom'l
Calif. exp.	2.75@	
Orris root, con. (oz.)	19.25	Nom'l
Artificial	35.00@	
Orris root, abs. (oz.)	100.00	Nom'l
Pennyroyal Amer.	3.00@	3.50
European	2.75@	3.00
Peppermint, natural	3.40@	3.65
Redistilled	3.65@	4.00
Petitgrain	1.55@	3.00
Pimento	3.00@	5.75
Pinus Sylvestris	3.35@	3.85
Pumillonis	3.75@	4.00
Rose, Bulgaria (oz.)	22.00	Nom'l
Synthetic	42.00@	
Rosemary, French	2.00	Nom'l
Spanish	.85@	1.00
Sage	5.00	Nom'l
Sage, Clary	45.00	Nom'l
Sandalwood, East India	5.50@	6.00
Australia	5.80@	6.00
Sassafras, natural	1.15@	1.30
Artificial	.82@	.85
Snake root	8.50@	9.00
Spearmint	2.75@	3.00
Thyme, red	1.50@	2.00
White	1.75@	2.25
Valerian	30.00	Nom'l
Vetivert, Bourbon	10.00	Nom'l
Java	6.80@	8.00
Wintergreen	4.00@	8.00
Wormseed	2.45@	2.85
Ylang Ylang, Manila	24.00	Nom'l
Bourbon	10.00	Nom'l

TERPENELESS OILS

Bay	2.25@	3.00
Bergamot	44.00	Nom'l
Clove	3.00@	4.75
Coriander	48.00@	50.00
Geranium		Nominal
Grapefruit	60.00@	65.00
Lemon	22.00@	25.00
Lime, ex.	68.00@	70.00
Distilled	55.00@	57.00
Orange, sweet	100.00@	120.00
Peppermint	8.75@	9.00
Petitgrain	2.65@	3.75
Rosemary	6.00@	6.50
Vetivert, Java	35.00	Nom'l

DERIVATIVES AND CHEMICALS

Acetaldehyde 50%	1.60@	2.00
Acetophenone	1.65@	1.80
Alcohol C 8	9.00@	13.00
C 9	22.00@	35.00
C 10	9.75@	13.50
C 11	17.50@	20.00
C 12	7.45@	15.00
Aldehyde C 8	22.50@	28.00
C 9	23.00@	30.00
C 10	29.00@	35.00
C 11	21.25@	23.50
C 12	28.00	Nom'l
C 14 (so-called)	9.50@	10.00
C 16 (so-called)	8.25@	12.00
Amyl Acetate	.50@	.75
Amyl Butyrate	.90@	1.10
Amyl Cinnamate	4.50@	5.80
Amyl Cinnamate Aldehyde	2.00@	3.50
Amyl Formate	1.00@	1.75
Amyl Phenyl Acetate	3.00	Nom'l
Amyl Salicylate	.75@	.90
Amyl Valerate	2.10	Nom'l
Anethol	1.05@	1.30
Anisic Aldehyde	2.80@	3.20
Benzophenone	.90@	1.30
Benzyl Acetate	.85@	1.25
Benzyl Alcohol	.70@	1.00
Benzyl Benzoate	.85@	1.75
Benzyl Butyrate	4.00@	5.10
Benzyl Cinnamate	5.25@	6.50
Benzyl Formate	3.60@	4.00
Benzyl-Iso-eugenol	10.50@	12.00
Benzylidenacetone	2.25@	3.40
Borneol	2.00	Nom'l
Bornyl Acetate	2.25	Nom'l
Bromstyrol	4.25	Nom'l
Butyl Acetate	.08½@	.14½
Butyl Propionate	2.00@	
Butyricaldehyde	12.00@	
Cinnamic Acid	3.75@	4.50
Cinnamic Alcohol	4.00@	6.10
Cinnamic Aldehyde	1.10@	1.35
Cinnamyl Acetate	7.15@	10.00
Cinnamyl Butyrate	12.00@	14.00
Cinnamyl Formate	13.00@	
Citral C. F.	3.50@	4.00
Citronellal	1.75@	2.50
Citronellol	2.25@	3.00
Citronellyl Acetate	4.00@	5.10
Coumarin	2.75@	3.00
Cuminic Aldehyde	21.00@	23.00
Diethylphthalate	.24@	.33
Dimethyl Anthranilate	5.10@	6.25
Ethyl Acetate	.25@	.50
Ethyl Anthranilate	5.75@	7.50
Ethyl Benzoate	.95@	1.50
Ethyl Butyrate	.85@	1.10
Ethyl Cinnamate	3.50@	3.80
Ethyl Formate	.75@	1.25
Ethyl Propionate	.95@	2.00
Ethyl Salicylate	1.10@	2.25
Ethyl Vanillin	6.25@	6.50
Eucalyptol	.90@	.95
Eugenol	2.25@	2.80
Geraniol, dom.	1.25@	3.50
Geranyl Acetate	1.65@	2.25
Geranyl Butyrate	6.15@	7.25
Geranyl Formate	4.25@	6.25
Heliotropin, dom.	3.55@	3.90
Hydrotopic Aldehyde	25.00@	27.50
Hydroxycitronellal	3.00@	6.00
Indol, C. P. (oz.)	31.00@	35.00
Iso-borneol	2.00	Nom'l
Iso-butyl Acetate	1.60@	2.25
Iso-butyl Benzoate	2.00@	2.75
Iso-butyl Salicylate	2.75@	5.50
Iso-eugenol	2.95@	4.50
Iso-safrol	2.00@	2.25
Linalool	3.65@	4.75
Linalyl Acetate 90%	7.25	Nom'l
Linalyl Anthranilate	15.00@	
Linalyl Benzoate	10.50@	
Linalyl Formate	9.00@	12.00
Menthol, Japan	4.10@	4.25
Chinese	4.05@	4.20
Synthetic	4.00@	4.10
Methyl Acetophenone	1.60@	2.00
Methyl Anthranilate	2.30@	3.25
Methyl Benzoate	.85@	1.75
Methyl Cellulose, f.o.b. shipping point	Nominal	.60
Methyl Cinnamate	2.65@	3.00
Methyl Eugenol	3.50@	6.75
Methyl Heptenone	2.50@	4.50
Methyl Heptine Carbonate	40.00@	45.00
Methyl Iso-eugenol	6.25@	11.50
Methyl Octine Carbonate	24.00@	30.00
Methyl Paracresol	2.50	Nom'l
Methyl Phenylacetate	2.25	Nom'l
Methyl Salicylate	.38@	.40
Musk Ambrette	3.85@	4.20
Ketone	4.00@	4.35
Xylene	1.25@	1.55
Nerolin (ethyl ester)	1.35@	1.80
Nonyl Acetate	.40@	.45
Octyl Acetate	.30@	.35
Paracresol Acetate	2.50@	5.00
Paracresol Methyl Ether	2.50@	3.50
Paracresol Phenyl-acetate	6.50@	8.50
Phenylacetaldehyde 50%	2.50@	4.00
100%	4.10@	7.00
Phenylacetic Acid	2.00	Nom'l
Phenylethyl Acetate	3.00@	5.00
Phenylethyl Alcohol	2.75@	3.50
Phenylethyl Anthranilate	16.00@	
Phenylethyl Butyrate	6.00@	10.00
Phenylethyl Propionate	5.50@	7.00
Phenyl Formate	12.50@	18.00
Phenyl Valerianate	16.00@	17.50
Phenylpropyl Acet.	10.00	Nom'l
Phenylpropyl Alcohol	4.00@	6.30
Phenylpropyl Aldehyde	8.10@	10.25

(Continued on p. 77)

(Continued from p. 75)

Rhodinol	35.00@	38.00
Safrol	1.10	Nom'l
Santalyl Acetate	20.00@	22.50
Skatol C. P. (oz.)	5.50@	8.00
Styralyl Acetate	5.00@	8.50
Styralyl Alcohol	9.25@	12.00
Terpineol, C. P.	.30@	.42
Terpinyl Acetate	.90@	1.20
Thymene	.45@	
Thymol	1.55@	1.60
Vanillin (clove oil)	2.60@	2.75
(guaiacol)	2.50@	2.65
Lignin	2.50@	2.65
Vetivert Acetate	25.00	Nom'l
Violet Ketone Alpha	5.00@	10.00
Beta	5.50@	8.00
Methyl	5.25@	8.00
Yara Yara (methyl ester)	1.50@	1.75

BEANS

Angostura	2.40@	2.65
Tonka Beans, Surinam	.80@	.85
Vanilla Beans		
Mexican, whole	10.50@	11.00
Mexican, cut	9.50@	9.75
Bourbon, whole	11.25	Nom'l
South American	9.50@	10.00
Tahiti	6.00@	7.15

SUNDRIES AND DRUGS

Acetone	.10	Nom'l
Almond meal	.25@	.27
Ambergris, ounce	12.00@	20.00
Balsam, Copaiba	.32@	.35
Peru	.85@	.90
Beeswax, bleached, pure U.S.P.	.39@	.42
Yellow, refined	.36@	.37
Bismuth sub-nitrate	1.20@	1.22
Borax, crystals, carlot, ton	48.00@	58.00
Boric Acid, ton	125.00@	140.00
Calamine	.18@	.20
Calcium, phosphate	.08@	.08¾
Phosphate, tri-basic	.09@	.10
Camphor	.75@	.81
Domestic	.62@	.75
Castoreum	13.00@	26.00
Cetyl Alcohol	1.50@	2.00
Pure	1.85@	2.25
Chalk, precip.	.03½@	.06½
Cherry laurel water, carboy	5.75@	6.25
Citric Acid	.21	Nom'l
Civet, ounce	20.00@	49.00
Clay, Colloidal	.07@	.15
Cocoa butter lump	.15@	.25
Cyclohexanol (Hexalin)	.30@	.50
Fuller's Earth, ton	15.00@	33.00
Glycerine, C. P. drums	.14½@	.17¼
Gum Arabic, white	.42@	.45
Amber	.19@	.21
Gum Benzoin, Siam	2.00@	2.25
Sumatra	.22@	.25
Gum galbanum	1.65@	1.80
Gum myrrh	.55@	.65
Henna powd.	.38	Nom'l
Kaolin	.03@	.05
Labdanum	3.25@	5.00
Lanolin, hydrous	.25@	.30
Anhydrous	.27@	.30
Magnesium, Carbonate	.09@	.10¾
Stearate	.24@	.27
Musk, ounce	35.50@	40.00
Olibanum, tears	.25@	.30
Siftings	.09@	.13
Orange flower water, carboy	8.75@	9.00
Orris root, powd.	1.40	Nom'l
Paraffin	.06¼@	.09
Peroxide	1.10@	1.75
Petrolatum, white	.06½@	.08½
Quince seed	1.50@	2.00
Rich starch	.08@	.09½
Rose leaves, red	3.00@	3.50
Rose water, carboy	6.50@	8.00
Rosin, M. per cwt.	2.59@	
Salicylic acid	.35@	.40
Saponin	3.00@	3.25
Silicate, 40°, drums, works, 100 pounds	.80@	1.20
Soap, neutral white	.20@	.25
Sodium, Carb. 58% light, 100 pounds	1.35@	2.35
Hydroxide, 76% solid, 100 pounds	2.60@	3.75
Spermaceti	.23@	.25
Stearate zinc	.27	Nom'l
Styrax	1.50@	1.75
Tartaric acid	.64	Nom'l
Tragacanth, No. 1	3.00@	3.10
Triethanolamine	.34½@	.42
Violet flowers	1.75@	2.00
Zinc Oxide, U. S. P. bbls.	.20	Nom'l

OILS AND FATS

Castor No. 1, tanks	.10½@	
Cocoanut, Manila Grade, tanks	.07	Nom'l
Cocoanut Oil, tanks	Nominal	
Corn, crude, Midwest mill, tanks	.10¼	Nom'l
Corn Oil, distilled, bbls.	.13½@	
Cotton, crude, Southeast, tanks	.09¼	Nom'l
Grease, white	.07⅞@	
Lard	.09⅞@	.13
Lard oil, common, No. 1 bbls.	.11¼@	
Palm, kernel, bulk, ship	Nominal	
Palm, Niger, drums	.05⅞@	
Peanut, refined, barrels	.13¼@	
Red Oil, distilled, tanks	.10¼@	
Stearic acid Triple pressed	.16@	.17
Saponified	.16¼@	.17¼
Tallow, acidless, barrels	.11¼@	
Tallow, N. Y. C. extra	.08@	
Whale oil, refined	.09½@	

Complete program for big F.E.M.A. Atlantic City meeting June 16-18

With its usual enterprise, the Flavoring Extract Manufacturers Assn. planned its business program for the annual meeting to be held in Atlantic City, N. J., June 16, 17 and 18, well in advance of the convention.

The executive committee will meet Sunday, June 15, in the morning and in the afternoon all convention committees will meet after which there will be an informal get-together at the Hotel President.

Business sessions will start promptly at 9 a. m., June 16, when President John H. Beach will open the convention. Lloyd E. Smith will introduce new members. E. Leidy Brendlinger, chairman of the convention committee, and Dr. Clarke E. Davis, chairman of the business program, will report after which Mr. Beach will give the president's annual report.

Counsel John S. Hall, who is also executive secretary, will then present his report. This will be followed by a report on the vanilla bean situation by Ray Schlotterer, secretary of the Vanilla Bean Assn. George H. Burnett, chairman, will then report on the alcohol tax reduction committee.

Dr. James M. Doran will follow with an address on further progress in alcohol tax reduction after which William C. Geagley, chief chemist, Dept. of Agriculture, Lansing, Mich., will speak on "Flavors and the Food Industry."

Problems that affect the drug and flavoring products industries will be discussed by Dr. F. J. Cullen, executive vice president of the Proprietary Assn. Leland P. Symmes then will give the report of the treasurer. Committees will then be appointed by the president. Incidentally, the following nominating committee was appointed a month in advance of the meeting: William A. Upham, chairman, Clark C. Nowland and William F. Fischer. This was done to give the members the opportunity to contact the committee in making up a slate that would be approved by the entire membership.

The business program for Tuesday will include reports by Lloyd E. Smith, chairman, for the membership committee and by Dr. Clarke E. Davis, chairman of the advertising committee. These addresses will then be made: "What are we Defending?" by Dr. Allen A. Stockdale, of the National Assn. of Manufacturers; "Trade Barriers" by Paul T. Truitt, of the Bureau of Foreign and Domestic Commerce; "Relationship of Our Industry to the Food and Drug Administration" by Ole Salthe; and "Current Labeling Problems Affecting the Flavoring Products Industry under the Federal Food, Drug and Cosmetic Act" by Dr. J. W. Sale, chemist, Food Division, F.D.A.

An executive session for active members will be held Wednesday morning after which the following reports will be made: Legislation, C. L. Fardwell; Bulk Sales Promotion, Howard L. Jenks; Costs, G. J. Waeglin; Scientific Research, Louis A. Rosett; Standards, Dr. B. H. Smith; Trade Relations, William B. Durling; Transportation, George M. Chapman; and Annual Convention, U. S. Chamber of Commerce, John M. Curlett.

A novel and interesting entertainment program has been arranged. Summer sports attire is decreed for the convention. At the annual banquet the men will wear summer sports attire and the ladies will wear dinner dresses.

Whittaker, Clark & Daniels, Inc. organizes American pumice concern

Whittaker, Clark & Daniels, Inc., New York, N. Y., and the McAleer Mfg. Co., Detroit, Mich., have purchased the pumice mill of the Barnsdall Tripoli Co. at Grants, N. M., and have leased a large pumice deposit near Grants to supply the mill with raw material. A new company has been organized under the name of the Pumice Corp. of America. Clarence E. Clark, New York, is president and Harold G. Robinson, New York, is secretary.

CLASSIFIED ADVERTISEMENTS

The rates for advertisements in this section are as follows: Business Opportunities, $1.00 per line per insertion; Situations Wanted and Help Wanted, 50c per line per insertion. Please send check with copy. Address all communications to THE AMERICAN PERFUMER, 9 East 38th St., New York

BUSINESS OPPORTUNITY

WANTED: 2—Dry Powder Mixers; 2—Pony Mixers; 2—Tablet Machines; 1—Filter; 3—Kettles; 2—Filling Machines. No dealers. Write Box 2353, The American Perfumer.

HELP WANTED

WANTED: Traveling representative for important perfume material and flavor house to contact agents and customers in South America. Fluency in Spanish and Portuguese as well as English, required. Also sales management experience and an understanding of the perfume and flavoring business is important. Good future assured for right man. State qualifications and expected remuneration by mail. Write Box 2387, The American Perfumer.

SITUATION WANTED

PRODUCTION MAN thorough knowledge manufacture of perfume oils and flavoring extracts; artificial; true fruit; fruit aromas, etc., for any purpose. Can match and improve products; instruct salesmen. Location immaterial. Write Box 2386, The American Perfumer.